Red Hat Network Basic

User Reference Guide 4.2



Red Hat Network Basic: User Reference Guide 4.2

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Introduction

Welcome to the Red Hat Network Basic User Reference Guide 4.2.

The *Red Hat Network Basic User Reference Guide* will guide you through registering your system for Red Hat Network and using its many features. Depending on which version of Red Hat Linux you have installed, the **Red Hat Network Registration Client** and the **Red Hat Update Agent** might be different than the ones described in this manual as new features are added. Once you use Red Hat Network to update these applications, you can use the latest version of this manual.

All versions of this manual are available in HTML and PDF formats at http://www.redhat.com/docs/manuals/RHNetwork/.

This version of the manual covers version 3.0.7 of the **Red Hat Update Agent** and version 2.8.27-34 of the **Red Hat Network Registration Client**.



Systems running Red Hat Linux 6.2 through 7.3 and Red Hat Enterprise Linux 2.1 will need to use the separate **Red Hat Network Registration Client** before starting the **Red Hat Update Agent**. Refer to Chapter 7 **Red Hat Network Registration Client** for instructions. Systems running Red Hat Linux 8.0 or newer can go directly to the **Red Hat Update Agent**, which has registration functionality built in. Refer to Chapter 2 **Red Hat Update Agent** for instructions.

For a technical overview of Red Hat Network, please refer to the whitepapers available at http://www.redhat.com/docs/wp/.

For an interactive demo of RHN, go to http://rhn.redhat.com/demo/rhn_demo.html. It requires the Macromedia Flash player.

1. Document Conventions

When you read this manual, you will see that certain words are represented in different fonts, typefaces, sizes, and weights. This highlighting is systematic; different words are represented in the same style to indicate their inclusion in a specific category. The types of words that are represented this way include the following:

command

Linux commands (and other operating system commands, when used) are represented this way. This style should indicate to you that you can type the word or phrase on the command line and press [Enter] to invoke a command. Sometimes a command contains words that would be displayed in a different style on their own (such as file names). In these cases, they are considered to be part of the command, so the entire phrase will be displayed as a command. For example:

Use the cat testfile command to view the contents of a file, named testfile, in the current working directory.

file name

File names, directory names, paths, and RPM package names are represented this way. This style should indicate that a particular file or directory exists by that name on your system. Examples:

The .bashrc file in your home directory contains bash shell definitions and aliases for your own use.

The /etc/fstab file contains information about different system devices and file systems.

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Install the webalizer RPM if you want to use a Web server log file analysis program.

application

This style indicates that the program is an end-user application (as opposed to system software). For example:

Use Mozilla to browse the Web.

[key]

A key on the keyboard is shown in this style. For example:

To use [Tab] completion, type in a character and then press the [Tab] key. Your terminal will display the list of files in the directory that start with that letter.

[key]-[combination]

A combination of keystrokes is represented in this way. For example:

The [Ctrl]-[Alt]-[Backspace] key combination will exit your graphical session and return you to the graphical login screen or the console.

text found on a GUI interface

A title, word, or phrase found on a GUI interface screen or window will be shown in this style. When you see text shown in this style, it is being used to identify a particular GUI screen or an element on a GUI screen (such as text associated with a checkbox or field). Example:

Select the **Require Password** checkbox if you would like your screensaver to require a password before stopping.

top level of a menu on a GUI screen or window

When you see a word in this style, it indicates that the word is the top level of a pulldown menu. If you click on the word on the GUI screen, the rest of the menu should appear. For example:

Under **File** on a GNOME terminal, you will see the **New Tab** option that allows you to open multiple shell prompts in the same window.

If you need to type in a sequence of commands from a GUI menu, they will be shown like the following example:

Go to **Main Menu Button** (on the Panel) => **Programming** => **Emacs** to start the **Emacs** text editor.

button on a GUI screen or window

This style indicates that the text will be found on a clickable button on a GUI screen. For example: Click on the **Back** button to return to the webpage you last viewed.

```
computer output
```

When you see text in this style, it indicates text displayed by the computer on the command line. You will see responses to commands you typed in, error messages, and interactive prompts for your input during scripts or programs shown this way. For example:

Use the 1s command to display the contents of a directory:

```
$ 1s
Desktop about.html logs paulwesterberg.png
Mail backupfiles mail reports
```

The output returned in response to the command (in this case, the contents of the directory) is shown in this style.

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prompt

A prompt, which is a computer's way of signifying that it is ready for you to input something, will be shown in this style. Examples:

```
#
[stephen@maturin stephen]$
leopard login:
```

user input

Text that the user has to type, either on the command line, or into a text box on a GUI screen, is displayed in this style. In the following example, **text** is displayed in this style:

To boot your system into the text based installation program, you will need to type in the text command at the boot: prompt.

Additionally, we use several different strategies to draw your attention to certain pieces of information. In order of how critical the information is to your system, these items will be marked as note, tip, important, caution, or a warning. For example:



Note

Remember that Linux is case sensitive. In other words, a rose is not a ROSE is not a rOSE.



The directory /usr/share/doc contains additional documentation for packages installed on your system.



If you modify the DHCP configuration file, the changes will not take effect until you restart the DHCP daemon.



Do not perform routine tasks as root — use a regular user account unless you need to use the root account for system administration tasks.

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If you choose not to partition manually, a server installation will remove all existing partitions on all installed hard drives. Do not choose this installation class unless you are sure you have no data you need to save.

2. More to Come

The Red Hat Network Basic User Reference Guide is constantly expanding as new Red Hat Network features and service plans are launched.

2.1. Send in Your Feedback

If you would like to make suggestions about the *Red Hat Network Basic User Reference Guide*, please mention this guide's identifier:

RHNbasic(EN)-4.2-HTML-RHI (2003-06-18T12:540700)

You can send mail to:

<rhn-feedback@redhat.com>



Chapter 1.

What is Red Hat Network?

Have you ever read about a new version of a software package and wanted to install it but could not find it?

Have you ever tried to find an RPM through an Internet search engine or an RPM Repository and been linked to a site that you have never heard of?

Have you ever tried to find an RPM but instead found only the source files that you had to compile vourself?

Have you ever spent hours or even days visiting different websites to see if you have the latest packages installed on your system, only to have to do it again in a few months?

Those days are over with Red Hat Network (RHN). RHN provides the solution to all your system software management needs.

Red Hat Network is an Internet solution for managing a Red Hat Linux system or a network of Red Hat Linux systems. All Security Alerts, Bug Fix Alerts, and Enhancement Alerts (collectively known as Errata Alerts) can be downloaded directly from Red Hat. You can even have updates scheduled to be delivered directly to your system as soon as they are released.

The main components of Red Hat Network are as follows:

- · The Red Hat Update Agent
- · The Red Hat Network Website
- · Red Hat Network Daemon
- The **Red Hat Network Registration Client** for systems running Red Hat Linux 6.2-7.3 and Red Hat Enterprise Linux 2.1 only.

The **Red Hat Update Agent** provides your initial connection to the Red Hat Network. Once registered, it enables channel subscription, package installs, and management of System Profiles. Red Hat Linux 8.0 systems will even use the Red Hat Update Agent to be registered to RHN. See Chapter 2 *Red Hat Update Agent* for further information.

You can use either of the two Red Hat Network user interfaces:

- · https://rhn.redhat.com
- · The Red Hat Update Agent

Both the website and the **Red Hat Update Agent** allow you to view Errata Alerts from in the Red Hat Errata list. Only packages relevant to your system are shown. Red Hat Network can also be configured to verify packages once downloaded, ignore update notifications for certain packages, and view package details before downloading them.

The **Red Hat Network Daemon** (rhnsd) runs in the background as a service and probes the Red Hat Network for notifications and updates at set time intervals (see Chapter 5 *Red Hat Network Daemon* for further information). This daemon is necessary if you want to schedule updates or other actions through the website.

The **Red Hat Network Registration Client** allows you to register your older Red Hat Linux (prior to 8.0) and Red Hat Enterprise Linux (2.1) systems with RHN. Registration involves creating a unique RHN username and password, probing the hardware on your system to create a Hardware Profile, and

probing the software packages installed on your system to create a Package Profile. This information is sent to RHN, and RHN returns a unique System ID to your system. See Chapter 7 *Red Hat Network Registration Client* for more information.

Many Red Hat Network terms are used throughout this manual. As you read the *Red Hat Network User Reference Guide*, refer to the *Glossary* as necessary for an explanation of common terms.



For a comparison chart of RHN service levels, refer to https://rhn.redhat.com/preview/.

1.1. Demo

The RHN Demo service level is the complimentary service level. All users receive one free subscription to RHN Demo. All that is required is the completion of a brief survey once every 60 days.

With each Demo subscription, you receive:

- Errata Notifications Be the first to know about Red Hat's patches. Subscribe to email errata notification through Red Hat Network.
- Errata Updates Immediately bring individual systems up-to-date with the click of a button.
- Search Packages Search through the full repository of RPMs available to Red Hat Network users.
- Search Errata Search through the collection of all errata ever released through Red Hat Network.

1.2. Basic

The RHN Basic service is ideal for a user with one Red Hat Linux system or a small number of Red Hat Linux systems to keep updated. Subscription to Basic can be purchased at http://rhn.redhat.com/purchase_info.pxt.

With each Basic subscription, you receive the essential functionality provided to Demo users, plus:

- Easy ISOs For customers who have purchased subscriptions to Red Hat Network, ISO images
 are available for immediate download. Beat the rush to the FTP servers by downloading directly
 from Red Hat Network.
- Priority Access during periods of high load When Red Hat releases a large errata, users with Priority Access can be guaranteed that they will be able to access the updated packages immediately.
- RHN Support Access All paying customers of Red Hat Network receive web based support for their RHN questions.
- Errata Notification, Multiple Systems Subscriptions for multiple systems means errata notification for errata to all of those systems.
- Errata Updates, Multiple Systems Get quick updates for multiple systems with an easy button click for each system.

1.3. Enterprise

In addition to the features offered in the RHN Demo and Basic subscription levels, the RHN Enterprise subscription service allows you to manage your network of Red Hat Linux systems, users, and system groups through its **System Set Manager** interface.

RHN Enterprise is based upon the concept of an organization. Each Enterprise-level Red Hat customer is assigned a Red Hat Customer Number. A Red Hat Network organization can be established for each Red Hat Customer Number. Each Red Hat Network organization contains users who have administration privileges to system groups. An Organization Administrator has overall control over each Red Hat Network organization with the ability to add and remove systems and users. When users other than the Organization Administrator log into the Red Hat Network website, they see only the systems they have permission to administer.

To create an account that can be used to entitle systems to RHN Enterprise, go to https://rhn.redhat.com/ and click on the **Create Account** link under the **Sign In** fields. On the *Sign Up for Red Hat Network* page, click **Create a new corporate account**. After creating a corporate account, you may add users within your organization to it.

The Red Hat Network features available to you depend on the subscription level for each Red Hat Linux system. With each Enterprise subscription, you receive the functionality provided to Demo and Basic users, plus:

- Package Profile Comparison Compare the package set on a system with the package sets of similar systems with one click.
- Search Systems Search through systems based on a number of criteria: packages, networking information, even hardware asset tags.
- System Grouping Web servers, database servers, workstations and other workload-focused systems may be grouped so that each set can be administered in common ways.
- Multiple Administrators Administrators may be given rights to particular system groups, easing the burden of system management over very large organizations.
- System Set Manager You may now apply actions to sets of systems instead of single systems.
 Work with members of a predefined system group, or work with an ad-hoc collection of systems.
 Install a single package to each, subscribe them all to a new channel, or apply all errata to them with a single action.
- Massive Scalability Figuring out a list of outdated packages for a thousand systems would take
 days for a dedicated sysadmin. Red Hat Network Enterprise Service can do it for you in seconds.

To learn more about the additional RHN Enterprise features, read the *Red Hat Network Enterprise User Reference Guide* available in HTML and PDF formats at http://www.redhat.com/docs/.

1.4. Errata Notifications and Scheduled Package Installations

You can configure the Red Hat Network to send you email notifications of new and updated software packages as soon as the packages are available through RHN. You can also schedule package installs or package updates. The benefits include:

- · Reduced time and effort required by system administrators to stay on top of the Red Hat Errata list
- Minimized security vulnerabilities in your network by providing the patches as soon as Red Hat releases them
- Filtered list of package updates (packages not relevant to your network are not included)
- · Reliable method of managing multiple systems with similar configurations

1.5. Security, Quality Assurance, and Red Hat Network

Red Hat Network provides significant benefits to your network including security and quality assurance. All transactions made between you and Red Hat Network are encrypted, and all RPM packages are signed with Red Hat's GNU Privacy Guard (GPG) signature to ensure authenticity.

Red Hat Network incorporates the following security measures:

- Your System Profile available at http://rhn.redhat.com is accessible only with an RHN-verified username and password.
- 2. A Digital Certificate is written to the client system after registration and is used to authenticate the system during each transaction between the client and Red Hat Network. The file is only readable by the root user on the client system.
- 3. All notifications and information messages are signed by Red Hat with an electronic signature using GPG. RPM can be used to verify the authenticity of the package before it is installed.
- 4. All transactions are encrypted using a Secure Sockets Layer (SSL) connection.
- All packages are tested and verified by the Red Hat Quality Assurance Team before they are added to the Red Hat Errata list and Red Hat Network.



Refer to https://rhn.redhat.com/help/faq/ for a list of Frequently Asked Questions.

1.6. Before You Begin

Red Hat Network is available for Red Hat Linux 6.2 and higher. For instructions on configuring Red Hat Linux 6.2 for Red Hat Network, refer to Chapter 6 *Using Red Hat Network with Red Hat Linux* 6.2.

By default, all the software packages you need to use Red Hat Network are installed with Red Hat Linux 7 and higher. However, if you chose not to install them during the installation process or performed an upgrade from Red Hat Linux 6.2 or lower, you may not have the **Red Hat Network Registration Client** or the **Red Hat Update Agent** installed. Remember, if you are a Red Hat Linux 8.0 or newer user, you do not need the **Red Hat Network Registration Client**. To determine if the **Red Hat Network Registration Client** is installed, type the following command:

```
rpm -q rhn_register
```

If the Red Hat Network Registration Client is installed, it will return something similar to

```
rhn register-2.8.27
```

The version number might differ slightly.

If you do not have the Red Hat Network Registration Client installed, the command will return

```
package rhn_register is not installed
```

Perform this check for every package in Table 1-1. If you prefer to use the command line versions, you do not have to install the two packages ending in gnome.

Package Name	Description
rhn_register	Provides the Red Hat Network Registration Client program and the text mode interface
rhn_register- gnome	Provides the GNOME interface (graphical version) for the Red Hat Network Registration Client ; runs if the X Window System is available
up2date	Provides the Red Hat Update Agent command line version and the Red Hat Network Daemon
up2date-gnome	Provides the GNOME interface (graphical version) for the Red Hat Update Agent ; runs if the X Window System is available

Table 1-1. Red Hat Network Packages

If the packages are not installed, they can be found on the Red Hat Linux 7 (or higher) CD-ROM #1 in the RedHat/RPMS directory or downloaded from the Red Hat FTP site available at ftp://ftp.redhat.com (or from a Red Hat FTP mirror available at http://www.redhat.com/mirrors.html). Always check the Red Hat Errata page, available at http://www.redhat.com/errata/, for package updates. If you install an older version of these packages, you can retrieve the latest versions using Red Hat Network. The first time that you request the RPM updates for your system, they will be included.





Red Hat Update Agent

The **Red Hat Update Agent** is your connection to the Red Hat Network. It enables you to register your systems, create System Profiles, and alter the settings by which your organization and RHN interact. Once registered, your systems can use the **Red Hat Update Agent** to retrieve the latest software packages from Red Hat. This tool will allow you to always have the most up-to-date Red Hat Linux systems with all security patches, bug fixes, and software package enhancements.

Remember, this tool must be run on the system you wish to update. You cannot use the **Red Hat Update Agent** on the system if it is not entitled to an RHN service offering.



Only systems running Red Hat Linux 8.0 or newer can use the **Red Hat Update Agent** to register with RHN. Systems running Red Hat Linux 6.2 through 7.3 and Red Hat Enterprise Linux 2.1 will need to use the separate **Red Hat Network Registration Client** before starting the **Red Hat Update Agent**. Refer to Chapter 7 *Red Hat Network Registration Client* for instructions. Then return to this chapter for instructions on using the **Red Hat Update Agent**.



You must use **Red Hat Update Agent** Version 2.5.4 or higher to upgrade your kernel automatically. It will install the updated kernel and configure LILO or GRUB to boot the new kernel the next time the system is rebooted. To ensure you are running the latest version, execute the command up2date up2date. If you do not have the latest version installed, this command will update it.

2.1. Starting the Red Hat Update Agent

If you are not running the X Window System or prefer the command line version of the **Red Hat Update Agent**, skip to Section 2.3.5 *Command Line Version*.

You must be root to run the **Red Hat Update Agent**. If you start it as a standard user, you will be prompted to enter the root password before proceeding. The **Red Hat Update Agent** can be started using one of the following methods:

For Red Hat Linux 8.0:

- On the GNOME and KDE desktops, go to the Main Menu Button (on the Panel) => System Tools
 => Red Hat Network.
- At a shell prompt (for example, an xterm or gnome-terminal), type the command up2date.

For Red Hat Linux 6.2 through 7.3:

- On the GNOME desktop, go to the **Main Menu Button** (on the Panel) => **Programs** => **System** => **Update Agent**.
- On the KDE desktop, go to the Main Menu Button (on the Panel) => Update Agent.
- At a shell prompt (for example, an xterm or gnome-terminal), type the command up2date.

If you choose the last option and start the application from a shell prompt, you can specify the options in Table 2-1 to the **Red Hat Update Agent**. To view these options, type the command up2date --help.

For example, use the following command to specify the directory in which to download the updated packages (temporarily overriding your saved configuration):

up2date --tmpdir=/tmp/up2date

Argument	Description
configure	Configure Red Hat Update Agent options. Refer to Section 2.4 <i>Configuration</i> for detailed instructions.
-d,download	Download packages only; do not install them. This argument temporarily overrides the configuration option Do not install packages after retrieval. Use this option if you prefer to install the packages manually.
-f,force	Force package installation. This option temporarily overrides the file, package, and configuration skip lists.
-i,install	Install packages after they are downloaded. This argument temporarily overrides the configuration option Do not install packages after retrieval.
-k,packagedir	Specify a colon separated path of directories to look for packages before trying to download them.
nosig	Do not use GPG to check package signatures. This option temporarily overrides the saved configuration option.
tmpdir=directory	Temporarily override the configured package directory. The default location is /var/spool/up2date. This option is useful if you do not have enough space in the configured location.
justdb	Only add packages to the database and do not install them.
dbpath=dir	Specify an alternate RPM database to use temporarily.

Table 2-1. Graphical Update Agent Options

The first time you run the **Red Hat Update Agent**, two dialog boxes will appear that you will not see in subsequent startups: Configure Proxy Server and Install GPG Key.

As shown in Figure 2-1, the first dialog box to appear will prompt you for HTTP Proxy Server information. This is useful if your network connection requires you to use a proxy server to make HTTP connections. To use this feature, select the **Enable HTTP Proxy** checkbox and type your proxy server in the text field with the format http://HOST:PORT, such as http://squid.mysite.org:3128. Additionally, if your proxy server requires a username and password, select the **Use Authentication** checkbox and enter your username and password in the respective text fields.

An HTTP Proxy Server is not required by Red Hat Network. If you do not want to use this feature, click the **OK** button without making any selections. Note that the Red Hat Network Server dropdown menu at the top of the dialog box is only useful to RHN Proxy and Satellite customers. These customers should refer to the RHN Client Configuration Guide for registration steps. Also note this dialox box is actually the **General** tab of the **Red Hat Update Agent Configuration Tool**. Refer to Section 2.4 Configuration for detailed instructions.

https://www.rhns.redhat.com/XMLRPC	
If you need a HTTP proxy, enter it here in the e.g. squid.mysite.org:3128	format HOST:PORT
☐ Enable HTTP Proxy:	
Use Authentication	
Username:	
Password:	

Figure 2-1. Configure Proxy Server

The second dialog box to appear will prompt you to install the Red Hat GPG key, as shown in Figure 2-2. This key is used to verify the packages you download for security purposes. Click **Yes** to install the key, and you will not see this message again.



Figure 2-2. Install GPG Key

2.2. Registration

Before you begin using Red Hat Network, you need to create a username, password, and System Profile. Upon launch, the **Red Hat Update Agent** senses whether these tasks have been accomplished. If not, it guides you through the registration process. If you ever need to force the **Red Hat Update Agent** into registration mode, say to re-register an existing system, you may do so by issuing the following command at a shell prompt:

After installing the Red Hat GPG key, the screen in Figure 2-3 will appear. It appears every time you start the **Red Hat Update Agent**. Click **Forward** to continue.



Figure 2-3. Welcome Screen

After clicking through the Welcome Screen, the Red Hat Privacy Statement appears. (See Figure 2-4). Red Hat is committed to protecting your privacy. The information gathered during the Red Hat Network registration process is used to create a System Profile, which is essential to receiving update notifications about your system. If after reading the statement you have any questions about how your information is being used, please contact us at <feedback@redhat.com>. When satisfied, click Forward.

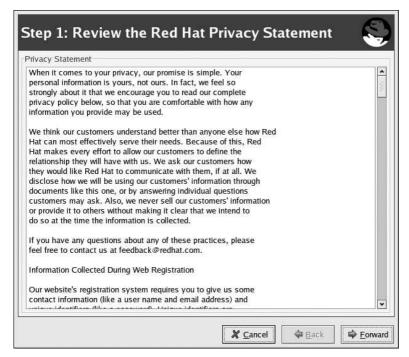


Figure 2-4. Red Hat Privacy Statement

2.2.1. Registering a User Account

Before you can create a System Profile, you must create a user account. All that is required is a unique username-password combination and a valid email address.

In the screen shown in Figure 2-5, choose a username and password. Once logged in to Red Hat Network, you can modify your preferences, view your existing System Profile, or obtain the latest Red Hat software packages.



Note

If you are already a member of redhat.com, you can use the same username and password. However, you will still need to continue with the registration process to create your System Profile.

Your username and password have the following restrictions:

- · Must be at least four characters long
- · Are case-insensitive
- Cannot contain any spaces
- · Cannot contain any tabs

- · Cannot contain any line feeds
- · Cannot contain the characters &, +, %, or '



Figure 2-5. Create a User Account

You must choose a unique username. If you enter one already in use, you will see an error message (see Figure 2-6). Try different usernames until you find one that has not been used.



Be sure to identify a username that you will be satisfied with permanently, as this cannot be changed after account creation.

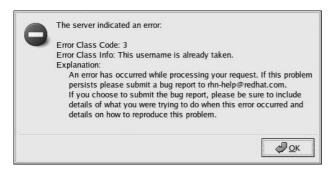


Figure 2-6. Error: Username Already Exists

Most users can leave the **Org Info** section blank. If you have an existing organization account, enter your organization's ID and password in the provided text fields. If the values are valid, the system will be added to the organization's Red Hat Network account.

If you have already registered a machine and created a System Profile, you can add a new machine to your account. Run the **Red Hat Update Agent** on the new machine you wish to add, and enter your existing Red Hat Network username and password. The new machine will be added to your existing account, and you can log into Red Hat Network with your username and password to view all your systems simultaneously.

In the Create Account screen, click Forward to continue.

If you are a new user to RHN, the **Red Hat Update Agent** takes you to the screen shown in Figure 2-7. Here you will add details about yourself and your business, if applicable, and identify the methods by which you should be reached.



Note

Unlike other details, your company name can be changed only through redhat.com. To make this change, go to http://www.redhat.com/ and click the **Account** link near the top-right corner. Sign in if you are not already logged in, and then click the **Account Details** link. In the **Edit Account Details** page, replace your company name in the appropriate field and click the **Finish** button at the bottom. The change will appear in the RHN website immediately.

Title:	Miss	*			
First name:	Jane		Last name:	Doe	
Company:	Example Inc.		Position:	System Administrat	or
Address:	123 Bee Street				
Address 2:	Suite 4400				
City:	San Francisco		State / Province:	California	
ZIP / Postal code:	94118		Country:	United States	,
Phone:	415-555-5555		Fax:		
Contact preference	5				
	ular mail 🕢 Telephone rom Red Hat partners	∏ Fa	x		

Figure 2-7. Register a User Account

Once satsfied with the information supplied, click **Forward** to continue.

2.2.2. Registering a System Profile

Now that you have a user account, you can create a System Profile that consists of hardware and software information about your Red Hat Linux system. The System Profile information is used by Red Hat Network to determine what software update notifications you receive.

2.2.2.1. Hardware System Profile

After creating a username and password for your Red Hat Network account, the **Red Hat Update Agent** probes your system for the following information:

- · Red Hat Linux version
- · Hostname
- IP address
- · CPU model
- · CPU speed
- · Amount of RAM
- · PCI devices

- · Disk sizes
- · Mount points

The next step is choosing a profile name for your system as shown in Figure 2-8. The default value is the hostname for the system. You may modify this to be a more descriptive string, such as **Email Server for Support Team**, if you find it more helpful. Optionally, you can enter a computer serial or identification number for the system.

If you do not wish to include information about your hardware or network in your System Profile, deselect **Include information about hardware and network** (see Figure 2-8).

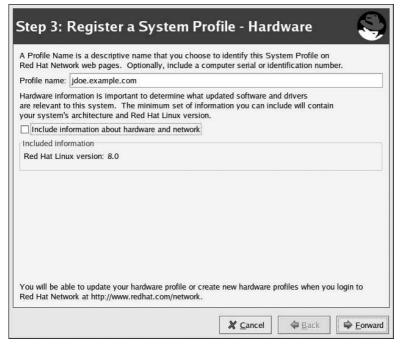


Figure 2-8. System Profile - Hardware

Click **Forward** to continue with the registration process.

2.2.2.2. Software System Profile

The software System Profile consists of a list of RPM packages for which you wish to receive notifications. The **Red Hat Update Agent** shows you a list of all RPM packages listed in the RPM database on your system and then allows you to customize the list by deselecting packages.

2.2.2.2.1. Gathering RPM Database Information

Only those packages you choose during this part of the registration will be included in your System Profile, and you will receive notifications only about the packages in your System Profile. Thus, if you use an older version of a package and deselect it from the list, it will not be replaced with a newer version. This RPM list can be modified through the Red Hat Network Web interface or by using the Red Hat Update Agent. Figure 2-9 shows the progress bar you will see while the Red Hat Update Agent gathers a list of the RPM packages installed on your system. This operation may take some time, depending on your system installation.



Figure 2-9. Registration Wizard

Once the RPM package list is built, the list will be displayed as shown in Figure 2-10. Deselecting **Include RPM Packages installed on this system in my System Profile** will omit this information from your System Profile.



Figure 2-10. RPM Package Information

2.2.2.2.2. Choosing RPM Packages to Exclude from the System Profile

By default, all RPM packages in your RPM database are included in your System Profile to be updated by Red Hat Network. To exclude a package, uncheck the package from the list by clicking the checkbox beside the package name. For example, Figure 2-11 shows that the **Canna-devel** and **Canna-libs** packages have been omitted from the package list.

Choose which packages to exclude, if any, from the System Profile, and click **Forward** to continue with the registration process.



Figure 2-11. Choose which RPM Packages to Exclude from System Profile

2.2.2.3. Finishing Registration

As seen in Figure 2-12, the last step of registration is to confirm that you want to send your System Profile to the Red Hat Network. If you choose **Cancel** at this point, no information will be sent. Clicking **Forward** will submit your RHN System Profile.

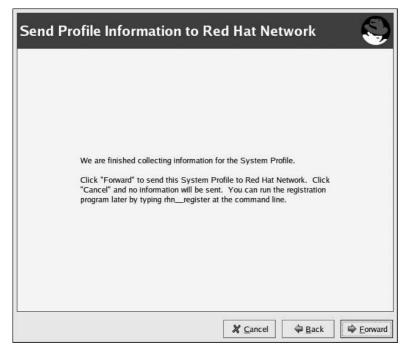


Figure 2-12. Finished Collecting Information for System Profile

Figure 2-13 shows the progress bar you will see while your profile is being sent. This process may take some time depending on your connection speed.

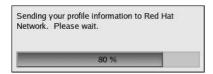


Figure 2-13. Send System Profile to Red Hat Network

You will know your System Profile has been successfully sent when you see the **Channels** screen (Figure 2-14) appear. Refer to Section 2.3.1 *Choosing a Channel* for continued instructions.

2.3. Setup and Use

After completing the registration process, you should set up the Red Hat Update Agent to effectively manage all of your system's package updates. This requires selecting its channel, identifying the packages requiring maintenance, and making your first installation.

2.3.1. Choosing a Channel

The first step is to select the channel from which you want the updated packages to be retrieved. After you send your System Profile, the **Channels** screen (Figure 2-14) appears. Select the appropriate base channel and click **Forward** to continue. Refer to Section 4.6 *Software* for more information on channels and how channels are used to determine which packages are installed.

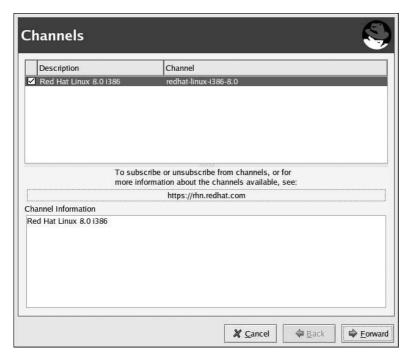


Figure 2-14. Channels

2.3.2. Choosing Packages to Update

After clicking **Forward**, the dialog box in Figure 2-15 will appear. This means a connection to Red Hat Network is being established and your customized list of updates is being retrieved. This might take some time, depending on the speed of your connection and the number of packages you have installed

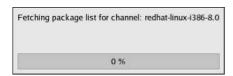


Figure 2-15. Retrieve Update Information

While you see this dialog box, the **Red Hat Update Agent** uses your unique Digital Certificate (/etc/sysconfig/rhn/systemid) to determine if there are any updated packages available for your system. If there are no updated packages available for your system, the dialog box in Figure 2-16 appears. Click **OK** to exit the **Red Hat Update Agent**.



Figure 2-16. No new packages needed

If you excluded any packages while registering your System Profile, these are displayed in Figure 2-17. You may override these settings and include any of these packages in the update by selecting the checkboxes next to them. To see a summary of each package in the **Package Information** section at the bottom of the screen, click the name of the package.

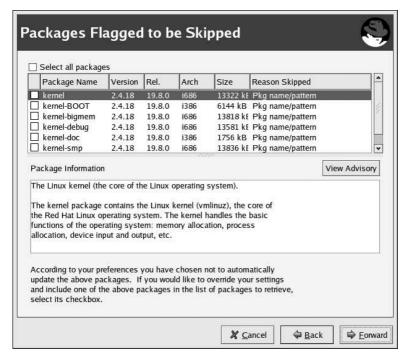


Figure 2-17. Packages Flagged to be Skipped

If you want to view the advisory for the RPM Alert, click the **View Advisory** button. This will display what type of Errata Alert it is and what problem(s) it addresses as shown in Figure 2-18. Click **OK** to close the advisory. Click **Finished** when you are finished selecting packages to include.



Bug Fix Advisory [RHBA-2002:292-05] Updated packages for Red Hat Linux 7.1, 7.1K, 7.2, 7.3, and 8.0 are now

Updated packages for Red Hat Linux /.1, /.1k, /.2, /.3, and 8.0 are now available that fix a bug in the ext3 file system discovered in the previous errata kernel. The bug has the potential to cause data loss if the file system is used in a non-default way.

The Linux kernel handles the basic functions of the operating system.

A bug in the ext3 file system in the previous errata kernel for Red Hat Linux 7.1, 7.1k, 7.2, 7.3, and 8.0 has been discovered. The bug has the potential to cause data loss if the file system is used in the non-default "full data journaling" mode.

The bug affects only filesystems mounted with the following option:

mount -o data=journal

If you have not set the above option then you are not vulnerable. If you do not know if you have set that option or not then you are not vulnerable, as no standard system software will set this option by default. You can check what default options are in use for a particular file system by looking in the system's /etc/fstab file.

The bug can only result in the loss of recent writes when a file system is unmounted. Proper synchronization of the data on disk in the event of a crash (the primary aim of a journaling file system such as ext3) is not affected by this bug.

In addition, a lockup bug has been fixed in the tg3 gigabit Ethernet driver that affects all multiprocessor systems using this controller.

All users of Red Hat Linux 7.1, 7.1K, 7.2, 7.3, and 8.0 should upgrade to these errata packages which are not vulnerable to these issues.



Figure 2-18. View Advisory

The **Available Package Updates** screen is the next to appear. If your system is not up-to-date, your customized list of available updated packages is displayed as shown in Figure 2-19.

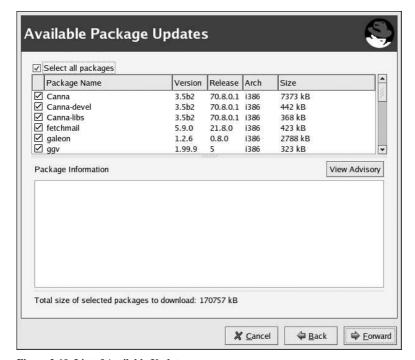


Figure 2-19. List of Available Updates

By default, no packages are selected for download. To select a package for download (and installation, if you chose that option), click its checkbox. To select all the packages listed, click the checkbox next to **Select all packages**.

After choosing which packages to update, the **Red Hat Update Agent** tests for RPM dependencies and prompts you if you have chosen to omit packages that are required for software updates that you did choose. The dialog box in Figure 2-20 is shown while it is testing for dependencies. This process might take some time depending upon how many packages are updating.

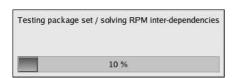


Figure 2-20. Testing Packages

After testing is complete, package retrieval begins. The progress of each package retrieval is shown in Figure 2-21. When they have all been retrieved, the message **All finished** is displayed at the bottom of the screen. Click **Forward** to continue.

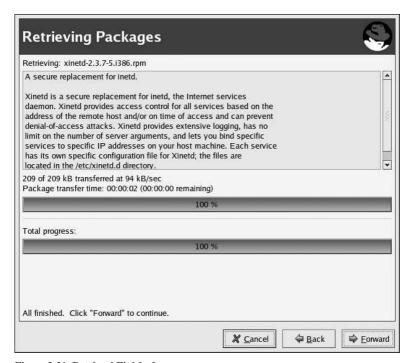


Figure 2-21. Retrieval Finished

2.3.3. Installing Updated Packages

After downloading the packages through the **Red Hat Update Agent**, they must be installed. If you chose not to have the packages installed via the **Red Hat Update Agent**, skip to Section 2.3.5.2 *Manual Package Installation* for further instructions. If you configured it to install the packages (the default setting), the selected packages are installed. The progress of installing each package, as well as the total progress, is displayed. When the packages have been installed, as seen in Figure 2-22, click **Forward** to continue.

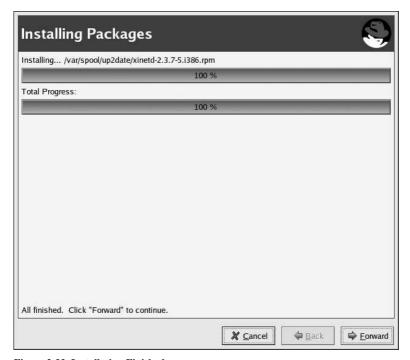


Figure 2-22. Installation Finished

2.3.4. Update Agent Finished

When the **Red Hat Update Agent** has finished downloading the desired packages (and installing them if you chose the install option), you will see the screen in Figure 2-23. Click **Finish** to exit the **Red Hat Update Agent**.



Figure 2-23. Update Agent Finished

2.3.5. Command Line Version

If you are not running X, you can still run the **Red Hat Update Agent** from a virtual console or remote terminal. If you are running X but want to use the command line version, you can force it not to display the graphical interface with the following command:

```
up2date --nox
```

The command line version of the **Red Hat Update Agent** allows you to perform advanced functions or to perform actions with little or no interaction. For example, the following command updates your system with no interaction. It will download the newer packages and install them if you configured it to install them.

```
up2date -u
```

The command line version of the **Red Hat Update Agent** accepts the following arguments:

Argument	Description
channel=channel	Specify which channels to update from using channel labels.
configure	Configure Red Hat Update Agent options. Refer to Section 2.4 <i>Configuration</i> for detailed instructions.

Argument	Description
-d,download	Download packages only; do not install them. This argument temporarily overrides the configuration option Do not install packages after retrieval. Use this option if you prefer to install the packages manually.
dbpath=dir	Specify an alternate RPM database to use temporarily.
dry-run	Do everything but download and install packages. This is useful in checking dependencies and other requirements prior to actual installation.
-f,force	Force package installation. This option temporarily overrides the file, package, and configuration skip lists.
firstboot	Pop up in the center of the screen for Firstboot.
gpg-flags	Show the flags GPG will be invoked with, such as the keyring.
hardware	Update this system's hardware profile on RHN.
-i,install	Install packages after they are downloaded. This argument temporarily overrides the configuration option Do not install packages after retrieval.
justdb	Only add packages to the database and do not install them.
-k,packagedir	Specify a colon-separated path of directories to look for packages in before trying to download them.
-1,list	List packages relevant to the system.
nodownload	Do not download packages at all. This is useful in testing.
nosig	Do not use GPG to check package signatures. This option temporarily overrides the saved configuration option.
nosrc	Do not download source packages (SRPMs).
nox	Do not attempt to run in X. This launches the command line version of the Red Hat Update Agent .
-p,packages	Update packages associated with this System Profile.
proxy=proxy URL	Specify an HTTP proxy to use.
proxyPassword=proxy password	Specify a password to use with an authenticated HTTP proxy.
proxyUser=proxy user ID	Specify a username to use with an authenticated HTTP proxy.
register	Register (or re-register) this system with RHN. Refer to Section 2.2 <i>Registration</i> for detailed instructions.
showall	List all packages available for download.
show-channels	Show the channel name associated with each package.
 solvedeps=dependencies	Find, download, and install the packages necessary to resolve dependencies.
src	Download source packages, as well as binary RPMs.

Argument	Description
tmpdir=directory	Temporarily override the configured package directory. The default location is /var/spool/up2date. This option is useful if you do not have enough space in the configured location.
undo	Reverse the last package set update.
-u,update	Update system with all relevant packages.
uuid=uuid	Pass in a Unique User ID generated by the Alert Notification tool.
verbose	Show additional output while updating.
 whatprovides=dependencie	Show the packages that resolve the comma-separated list of sdependencies.

Table 2-2. Update Agent Command Line Arguments

2.3.5.1. Installing the Red Hat GPG key

The first time you run the graphical version of the **Red Hat Update Agent**, it prompts you to install the Red Hat GPG key. This key is required to authenticate the packages downloaded from Red Hat Network. If you run the command line version the first time you start **Red Hat Update Agent**, you need to install the Red Hat GPG key manually. If you do not have it installed, you will see the following message:

```
Your GPG keyring does not contain the Red Hat, Inc. public key. Without it, you will be unable to verify that packages Update Agent downloads are securely signed by Red Hat.
```

```
Your Update Agent options specify that you want to use GPG.
```

To install the key, run the following as root:

```
/usr/bin/gpg --import /usr/share/rhn/RPM-GPG-KEY
```

To install the Red Hat GPG key, use the command displayed: /usr/bin/gpg --import/usr/share/rhn/RPM-GPG-KEY, or use the following steps:



Note

GPG keys must be installed for each user. To install the key to use with Red Hat Network, import the key while logged in as root.

 Cut and paste the following into a file and save it as redhat2.asc or download it from https://www.redhat.com/solutions/security/news/publickey/#key.

```
Type bits/keyID Date User ID
pub 1024D/DB42A60E 1999-09-23 Red Hat Software, Inc. (security@redhat.com)
sub 2048g/961630A2 1999-09-23

-----BEGIN PGP PUBLIC KEY BLOCK-----
Version: GnuPG v1.0.0 (GNU/Linux)
```

```
Comment: For info see http://www.gnupg.org
```

mQGiBDfqVDgRBADBKr3Bl6P08BQ0H8sJoD6p9U7Yyl7pjtZqioviPwXP+DCWd4u8 HQzcxAZ57m8ssA1LK1Fx93coJhDzM130+p5BG9mYSWShLabR3N1KXdXQYYcowTOM GxdwYRGr1Spw8QydLhjVfU1VS14xt6bupPbWJbyjkg5Z3P7B1U0UJmrx3wCgobNV EDGaWYJcch5z5B1of/41G8kEAKii6q7Gu/vhXXnLS6m15oNnPVybyngiw/23dKjS ZVG7rKANEK2mxq1VB+vc/uUc4k49UxJJfCZq1qu1sPFV3GSa+Y/7jsiLktQvCiLP lncQt1dV+ENmHR5BdIDPWDzKBVbgWnSDnqQ6KrZ7T6AlZ74VMpjGxxkWU6vV2xsW XCLPA/9P/vtImA8CZN3jxGqtK5GGtDNJ/cMhhuv5tnfwFq4b/VGo2Jr8mhLUqoIb ${\tt E6zeGAmZbUpdckDco8D5fiFmqTf5+++pCEpJLJkkzel/32N2w4qzPrcRMCiBURES}$ PjCLd4Y5rPoU8E4kOHc/4BuHN903tiCsCPloCrWsQZ7UdxfQ5LQiUmVkIEhhdCwq SW5jIDxzZWN1cml0eUByZWRoYXQuY29tPohVBBMRAgAVBQI361Q4AwsKAwMVAwID FgIBAheAAAoJECGRgM3bQqYOsBQAnRVtg7B25Hm11PHcpa8FpeddKiq2AJ9aO8sB XmLDmPOEFI75mpTrKYHF6rkCDQQ361RyEAqAokqI2xJ+3bZsk8jRA8ORIX8DH05U lMH27qFYzLbT6npXwXYIOtVn0K2/iMDj+oEB1Aa2au4OnddYaLWp06v3d+XyS0t+ 5ab2ZfIQzdh7wCwxqRkzR+/H5TLYbMG+hvtTdylfqIX0WEfoOXMtWEGSVwyUsnM3 Jy3LOi48rQQSCKtCAUdV20FoIGWhwnb/gHU1BnmES6UdQujFBE6EANqPhp0coYoI hHJ2oIO8ujQItvvNaU88j/s/izQv5e7MXOgVSjKe/WX3s2JtB/tW7utpy12wh1J+ JsFdbLV/t8CozUTpJgx5mVA3RKlxjTA+On+1IEUWioB+iVfT7Ov/0kcAzwADBQf9 ${\tt E45KCWR} and 8{\tt K0XloMYgmipxMhJNnWDMLkokvbMNTUoNpSfRoQJ9EheXDxwMpTPwK}$ ti/PYrrL2J11P2ed0x7zm8v3gLrY0cue1iSba+8glY+p31ZPOr5ogaJw7ZARgoS8 BwjyRymXQp+8Dete0TELKOL2/itDOPGHW07SsVWOR6cmX4VlRRcWB5KejaNvdrE5 4XFtOd04NMgWI63uqZc4zkRa+kwEZtmbz3tHSdRCCE+Y7YVP6IUf/w6YPQFQriWY FiA6fD10eB+BlIUqIw80VgjsBKmCwvKkn4jg8kibXgj4/TzQSx77uYokw1EqQ2wk OZoaEtcubsNMquuLCMWijYhGBBqRAqAGBQI361RyAAoJECGRqM3bQqYOhyYAnj7h VDY/FJAGqmtZpwVp9IlitW5tAJ4xQApr/jNFZCTksnI+401765F7tA==

----END PGP PUBLIC KEY BLOCK----

2. At the shell prompt, import the key with the following command:

```
gpg --import redhat2.asc
```

The resulting message tells you that the key was processed. To check that the key was added, type <code>gpg --list-keys</code>. You will see the Red Hat, GPG key as well as your own keys.

2.3.5.2. Manual Package Installation

If you chose to download the software updates with the **Red Hat Update Agent** or from the RHN website, you must install them manually using RPM.

To install them, change to the directory that contains the downloaded packages. The default directory is /var/spool/up2date. Then, type the command rpm -Uvh *.rpm. When the packages are finished installing, you can delete them if you wish. You do not need them anymore.

After installing the packages, you must update your System Profile so that you are not prompted to download them again. Refer to Section 2.3.5.3 *Synchronizing Your System Profile* for details.

2.3.5.3. Synchronizing Your System Profile

If you configured the **Red Hat Update Agent** to install the latest packages, then your System Profile stored by Red Hat Network will be updated after the packages are installed. However, if you only download the latest RPM packages using the **Red Hat Update Agent**, download the RPM packages from the website, or upgrade/install/remove RPM packages yourself, your System Profile will not be updated automatically. You will need to send your updated System Profile to the RHN Servers.

To synchronize the RPM package list on your local system and on Red Hat Network, run the command: After running this command, your RHN System Profile will reflect the latest software versions installed on your system.

2.3.5.4. Log File

The Red Hat Update Agent keeps a log of all the actions that it performs on your system in the file /var/log/up2date. It uses the standard rotating log method. Thus, older logs are in /var/log/up2date.1, /var/log/up2date.2, and /var/log/up2date.3. The log files store actions performed by the Red Hat Update Agent such as when your RPM database is opened, when it connects to Red Hat Network to retrieve information from your System Profile, which packages are downloaded, which packages are installed using the Red Hat Update Agent, and which packages are deleted from your system after installation. If you choose to install and delete packages yourself, it will not be logged in this file. You should keep your own log of actions not performed with the Red Hat Update Agent.

2.4. Configuration

The **Red Hat Update Agent** offers various options to configure its settings.

If you are not running the X Window System or prefer the command line version, skip to Section 2.4.2 *Command Line Version*.

2.4.1. Using the Red Hat Update Agent Configuration Tool

You must be root to run the **Red Hat Update Agent Configuration Tool**. If you start the **Red Hat Update Agent Configuration Tool** as a standard user, you will be prompted to enter the root password before proceeding. The **Red Hat Update Agent Configuration Tool** can be started by typing the command up2date-config at a shell prompt (for example, an xterm or a gnome-terminal).

2.4.1.1. General Settings

The General tab allows you to enable an HTTP Proxy Server. If your network connection requires you to use an HTTP Proxy Server to make HTTP connections, select the Enable HTTP Proxy option and type your proxy server in the text field with the format http://HOST:PORT. For example, to use the proxy server http://squid.mysite.org on port 3128, you would enter http://squid.mysite.org:3128 in the text field. Additionally, if your proxy server requires a username and password, select the Use Authentication option and enter your username and password in the respective text fields.

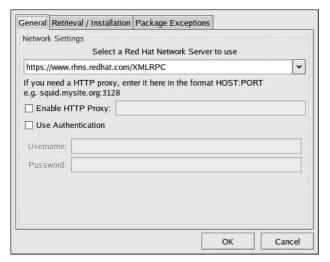


Figure 2-24. General Settings

In addition, RHN Proxy and Satellite customers have the option of selecting Red Hat Network Servers here. These customers should refer to the RHN Client Configuration Guide for detailed instructions.

2.4.1.2. Retrieval/Installation Settings

The **Retrieval/Installation** tab allows you to customize your software package retrieval and package installation preferences.



You must use **Red Hat Update Agent** Version 2.5.4 or higher to upgrade your kernel automatically. **Red Hat Update Agent** will install the updated kernel and configure LILO or GRUB to boot the new kernel the next time the system is rebooted.

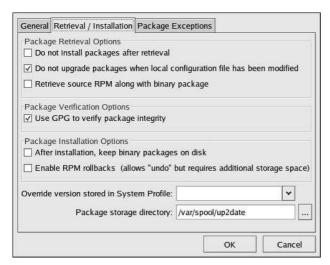


Figure 2-25. Retrieval/Installation Settings

The following package retrieval options can be selected (see Figure 2-25):

- Do not install packages after retrieval download selected RPM packages to desired directory
 and ignore the installation preferences
- Do not upgrade packages when local configuration file has been modified if the configuration file has been modified for a package such as apache or squid, do not attemp to upgrade it. This option is useful if you are installing custom RPMs on your system and you do not want them updated or reverted to the default Red Hat Linux packages.
- Retrieve source RPM along with binary package download both the source (*.src.rpm) and the binary (*.[architecture].rpm) files

The following installation options are configurable (see Figure 2-25):

- Use GPG to verify package integrity before installing the packages, verify Red Hat's GPG signature (highly recommended for security reasons)
- After installation, keep binary packages on disk save binary packages in desired directory instead of deleting them after installation
- Enable RPM rollbacks allow "undo" of updates. This requires additional storage space.

The following additional options are configurable from this tab:

- Override version stored in System Profile override the Red Hat Linux version in your System
 Profile
- Package storage directory change the directory where packages are downloaded; the default location is /var/spool/up2date

2.4.1.3. Package Exceptions Settings

The **Package Exceptions** tab allows you to define which packages to exclude from the list of updated RPM packages according to the package name or file name (see Figure 2-26).

To define a set of packages to be excluded according to the package name, enter a character string including wild cards (*) in the **Add new** text field under in the **Package Names to Skip** section. A wild card at the end of the character string means all packages beginning with the character string will be excluded from the list. A wild card at the beginning of the character string means any packages that end with the character string will be excluded from the list.

For example, if the string kernel* in the Package Names to Skip section, the Red Hat Update Agent will not display any packages beginning with kernel.

To exclude packages by file name, follow the same rules except click the **Add** button next to the **File Names to Skip** section.

Packag	e Names to Skip	
Add ne	N.	Add
kernel*		
		Edit
		Remove
ile Nar	mes to Skip	
	nes to skip	
	- T	Add
	- T	Add
	- T	Add
Add nev	- T	

Figure 2-26. Package Exceptions Settings

2.4.2. Command Line Version

The command line version of this tool performs the same function as the graphical version. It allows you to configure the settings used by the **Red Hat Update Agent** and store them in the configuration file /etc/sysconfig/rhn/up2date.

To run the command line version of the **Red Hat Update Agent Configuration Tool**, use the following command:

```
up2date --nox --configure
```

You will be presented with a list of options and their current values:

```
0. debug No
1. isatty Yes
2. depslist []
3. networkSetup Yes
4. retrieveOnly No
5. enableRollbacks No
```

```
['kernel*']
pkgSkipList

    storageDir

                     /var/spool/up2date
                    ['root@localhost']
8. adminAddress
9. noBootLoader
                     No
10. serverURL
                    https://www.rhns.redhat.com/XMLRPC
11. fileSkipList
12. sslCACert
                     /usr/share/rhn/RHNS-CA-CERT
13. noReplaceConfig
                    Yes
14. useNoSSLForPackage No
15. systemIdPath
                /etc/sysconfig/rhn/systemid
16. enableProxyAuth No
17. retrieveSource
                    No
18. versionOverride
19. headerFetchCount 10
20. networkRetries
                    5
                    No
21. enableProxy
22. proxyPassword
23. noSSLServerURL http://www.rhns.redhat.com/XMLRPC
24. keepAfterInstall No
25. proxyUser
26. removeSkipList
                    ['kernel*']
27. useGPG
28. gpgKeyRing
                    /etc/sysconfig/rhn/up2date-keyring.gpg
29. httpProxy
30. headerCacheSize
                     40
31. forceInstall
                     No
```

Enter number of item to edit <return to exit, q to quit without saving>:

Enter the number of the item that you want to modify and enter a new value for the option. When you finish changing your configuration, press [Enter] to save your changes and exit. Press [q] and then [Enter] to quit without saving your changes.



Although this isn't configurable, users should still make note that the port used by the **Red Hat Update Agent** is 443 for SSL (HTTPS) and 80 for non-SSL (HTTP). By default, up2date uses SSL only. For this reason, users should ensure their firewalls allow connections over port 443.



Red Hat Network Alert Notification Tool

The **Red Hat Network Alert Notification Tool** is a notifier that appears on the panel and alerts users when software package updates are available for their systems. The list of updates is retrieved from the RHN Servers. The system does not have to be registered with Red Hat Network to display a list of updates; however, retrieving the updates with the **Red Hat Update Agent** requires registration with Red Hat Network and a subscription to an RHN service offering. The notifier does not send any identifiable information about the user or the system to the RHN Servers.

To use the **Red Hat Network Alert Notification Tool**, you must install the rhn-applet RPM package and use the X Window System.

Starting with Red Hat Linux 7.3, the **Red Hat Network Alert Notification Tool** appears on the panel by default as shown in Figure 3-1.



Figure 3-1. GNOME Panel with Red Hat Network Alert Notification Tool

If it does not appear on the panel, you can add it:

- In Red Hat Linux 8.0 and later, select the Main Menu Button => System Tools => Red Hat
 Network Alert Icon. To ensure the icon appears on subsequent sessions, select the Save current
 setup checkbox when logging out.
- In older versions of Red Hat Linux, select the Main Menu Button => Panel => Add to Panel => Applet => Red Hat Network Monitor. To move it around the panel, right-click on the applet, select Move, move the mouse left and right until it is in the desired location, and click the mouse to place the applet.

3.1. Configuring the Applet

The first time the **Red Hat Network Alert Notification Tool** is run, a configuration wizard starts. It displays the terms of service and allows the user to configure an HTTP proxy as shown in Figure 3-2.

e.g. squid.mysite.d	-		
— ☐ Use Authentica			
Username:			
Password:			

Figure 3-2. HTTP Proxy Configuration

If your network connection requires you to use an HTTP Proxy Server to make HTTP connections, on the **Proxy Configuration** screen, type your proxy server in the text field with the format HOST:PORT. For example, to use the proxy server http://squid.mysite.org on port 3128, enter squid.mysite.org:3128 in the text field. Additionally, if your proxy server requires a username and password, select the **Use Authentication** option and enter your username and password in the respective text fields.



To run the configuration wizard again, right-click on the applet, and select Configuration.

Your preferences are written to the file .rhn-applet.conf in your home directory. The **Red Hat Network Alert Notification Tool** also uses the system-wide configuration file /etc/sysconfig/rhn/rhn-applet. Do not modify the system-wide configuration file; it is automatically generated by the application.

You can also configure the **Red Hat Network Alert Notification Tool** not to list specific packages. To configure which packages to ignore, click on the applet, and select the **Ignored Packages** tab.

3.2. Notification Icons

The applet displays a different icon, depending on the status of the updates. Refer to Table 3-1 for details.

Icon	Description
0	Update are available
Ø	System is up-to-date
	Checking for updates
(3)	Error has occurred

Table 3-1. Red Hat Network Alert Notification Tool Icons

If you see the ① icon, it is highly recommended that you apply the updates. Refer to Section 3.4 *Applying Updates* for information on applying updates.

If you have scheduled updates to be installed, you can watch the applet icon to determine when updates are applied. The icon changes to the icon after the Errata Updates are applied.

If you apply a kernel update (or the kernel update is automatically applied), the applet will display the until the system is rebooted with the new kernel. If you click on the applet, the **Available Updates** tab displays a list of packages that can be updated on your system.

3.3. Viewing Updates

Clicking on the **Red Hat Network Alert Notification Tool** displays a list of available updates. To alter your list of excluded packages, click the **Ignored Packages** tab and make your modifications.

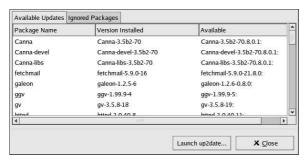


Figure 3-3. Available Updates

3.4. Applying Updates

If the system is registered with RHN and entitled to a service offering, you can apply the Errata Updates with the **Red Hat Update Agent**. To launch the **Red Hat Update Agent**, click on the applet, and then click on the **Launch up2date** button. You can also right-click on the icon and select **Launch up2date**. For more information on the **Red Hat Update Agent**, refer to Chapter 2 **Red Hat Update Agent**.

3.5. Launching the RHN Website

The simplest way to obtain a comprehensive view of your system's status is to access the RHN website. This can be accomplished through the **Red Hat Network Alert Notification Tool** by right-clicking on it and selecting **RHN Website**. For more information on the RHN website, refer to Section 4.2 *Introduction to the Website*.



Red Hat Network Website

You can use the Red Hat Network website to manage multiple Red Hat Linux systems simultaneously, including viewing Errata Alerts, applying Errata Updates, and installing packages.

4.1. Logging into the RHN Website

In a Web browser, go to http://rhn.redhat.com. The page shown in Figure 4-1 will be displayed.

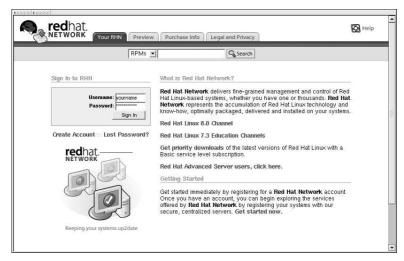


Figure 4-1. RHN Website

If you have not registered a system yet or do not have a redhat.com account, create a new account by clicking **Create Account**. After creating a new user account, you must register your system before using RHN. Refer to Chapter 2 *Red Hat Update Agent* for step-by-step instructions.

After registering your system with Red Hat Network, go back to http://rhn.redhat.com and complete the username and password fields with the same information established during registration. Click the **Sign In** link near the top to display the fields, if they are not already visible. Once complete, click the **Sign In** button.

4.2. Introduction to the Website

The top navigation bar is divided into tabs of primary categories containing pages linked from the left navigation bar.

A user with entitled systems has permission to use the following categories and pages. Each will be explained in more detail later in this chapter.

Your RHN — View and manage your primary account information and obtain help.

- Your RHN Obtain a quick overview of your account. It notifies you if your systems need
 attention, provides a quick link to go directly to them, and displays the most recent Errata Alerts
 for your account.
- Your Account Update your personal profile and addresses.
- Your Preferences Indicate if you wish to receive email notifications about Errata Alerts for your systems, set how many items are displayed at one time for lists such as system lists and system group lists, set your time zone, and identify your contact options.
- Buy Now Purchase Basic subscriptions and obtain contact information to buy Enterprise subscriptions.
- Purchase History View a history of your entitlements, including the expiration date and the number available.
- Help Learn how to use Red Hat Network and receive support if needed.
- Systems Manage your systems here.
 - Systems Select and view portions of your systems by specific criteria, such as Out of Date, Unentitled, Ungrouped, and Inactive.
 - System Entitlements Change the entitlement levels of systems.
- Errata View and manage Errata Alerts here.
 - Errata List Errata Alerts and download associated RPMs.
 - Advanced Search Search Errata Alerts based on specific criteria, such as synopsis, advisory type, and package name.
- Software View and manage the available RHN channels and the packages they contain.
 - Channels View a list of all channels and those applicable to your systems.
 - Channel Entitlements View a list of channels for which you have paid, as well as the systems associated with each.
 - Easy ISOs Access priority downloading of Red Hat ISO images. ISO images are used to write to CD.
 - Advanced Search Search RPMs using all or some portion of the package name.
- · Schedule Keep track of your scheduled actions.
 - Pending Actions List scheduled actions that have not been completed.
 - Failed Actions List scheduled actions that have failed.
 - Completed Actions List scheduled actions that have been completed. Completed actions can
 be archived at any time.
 - Archived Actions List completed actions that have been selected to archive.

4.2.1. Errata Alert Icons

Throughout Red Hat Network you will see three Errata Alert icons. Tepresents a Security Alert. represents a Bug Fix Alert. represents an Enhancement Alert.

In the **Your RHN** page, click on the Errata advisory to view details about the Errata or click on the number of affected systems to see which are affected by the Errata Alert. Both links take you to tabs of the **Errata Details** page. Refer to Section 4.5.2.2 *Errata Details* for more information.

4.2.2. Quick Search

In addition to the Advanced Search functionality offered within some categories, the RHN website also offers a Quick Search tool near the top of each page. To use it, select the item type (such as RPMs) and type a keyword that will be used to look for a name match. Then click the **Search** button. Your results will appear at the bottom of the page. Refer to the appropriate category for instructions on using these results.

4.2.3. List Navigation

The information within most categories is presented as lists. These lists have some common features for navigation. For instance, you can navigate through virtually all lists by clicking the back and next arrows above and below the right side of the table. Some lists also offer the ability to retrieve items alphabetically by clicking the letters above the table.

4.3. Your RHN

After logging into the website of Red Hat Network, the first category to appear is **Your RHN** displaying as its first page **Your RHN**. This page contains important information about your systems, including summaries of system status, actions, and Errata Alerts.



If you are new to the RHN website, it is recommended that you read Section 4.2 *Introduction to the Website* to become familiar with the layout and symbols used throughout the website.



Figure 4-2. Your Red Hat Network

The top of the page shows how many systems need attention, provides a link to quickly view those systems, and displays a summary of scheduled actions. Refer to Section 4.4.1 *Systems* for information on using the **Systems** pages.

The **System Summary** section of **Your RHN** page provides the following information:

- Total Systems Number of total systems that you have registered for your account.
- Out of Date Systems Number of registered systems that have applicable Errata Alerts that have not been applied.
- Unentitled Systems Number of systems that are not entitled.
- Inactive Systems Number of systems that have not checked into RHN for 24 hours or more.
 Refer to Section 4.4.1.4 Inactive for details.

The **Action Summary** section provides the following information about events scheduled in the past week:

- Recently Failed Actions Number of scheduled actions that did not succeed.
- **Pending Actions** Number of scheduled actions that have not yet been completed.
- Recently Completed Actions Number of scheduled actions that succeeded.

The **Errata** section lists all and relevant Errata Alerts. You may toggle between All and Relevant by clicking the **View All** or **View Relevant** link at the top of the table. To go to a complete list of applicable Errata Alerts for your systems stored in the **Errata** category, click **View All Relevant Errata** in the bottom right-hand corner.

You can return to this page by clicking Your RHN on the left navigation bar.

4.3.1. Your Account

The **Your Account** page allows you to modify your personal information, such as name, password, email and title. To modify any of this information, merely make the changes in the appropriate text fields and click the **Update** button in the bottom right-hand corner.

Remember, if you change your Red Hat Network password (the one used to log into RHN and redhat.com), you will not see your new one as you type it for security reasons. Replace the asterisks in the **Password** and **Password Confirmation** text fields with your new password.

4.3.1.1. Addresses

The **Addresses** page allows you to manage your mailing, billing and shipping addresses, as well as the associated phone numbers. Just click **Edit this address** below the address to be modified, make the changes, and click **Update Address**.

4.3.1.2. Change Email

The email address listed in the **Your Account** page is the address Red Hat Network sends email notifications to, if you select to receive Errata Alerts or daily summaries for your systems on the **Your Preferences** page.

To change your preferred email address, click **Change Email** in the left navigation bar. You will then be asked for the new email address. Enter it and click the **Update** button. A confirmation email will be sent to the new email address; responding to the confirmation email will validate the new email address. Note that false email addresses such as those ending in "@localhost" are filtered and rejected.

4.3.1.3. Account Deactivation

The **Account Deactivation** page provides a means to cancel your Red Hat Network service. It presents steps for manual deletion or instructions for contacting Customer Service, depending on your level of service. Deletion of the account should occur within one business week.

4.3.2. Your Preferences

The **Your Preferences** page allows you to configure Red Hat Network options, including:

Email Notifications — Determine whether you want to receive email every time an Errata Alert is
applicable to one or more systems in your RHN account.



Important

This setting also enables Enterprise customers to receive a daily summary of system events. These include actions affecting packages, such as scheduled Errata Updates, and system reboots or failures to check in. In addition to selecting this checkbox, you must identify each system to be included in this summary email. (By default, all Enterprise systems are included in the summary.) This can be done either through the **System Details** page individually or through the **System Set Manager** interface for multiple systems at once. Note that RHN will send these summaries only to verified email addresses. To disable all messages, simply deselect this checkbox.

- RHN List Page Size Maximum number of items that will appear in a list on a single page. If more
 items are in the list, clicking the **Next** button will display the next group of items. This preference
 applies to system lists, Errata lists, package lists, and so on.
- Time Zone Set your time zone so that scheduled actions are scheduled according to the time in your time zone.
- Red Hat Contact Options Identify what ways (email, phone, fax, or mail) Red Hat may contact
 you.

After making changes to any of these options, click the **Save Preferences** button on the bottom right-hand corner.

4.3.3. Buy Now

The **Buy Now** page provides an online form to purchase Basic subscriptions and contact information to buy Enterprise subscriptions.

4.3.4. Purchase History

The **Purchase History** page displays a history of your entitlements, including the expiration date and the number available.

4.3.5. Help

The **Help** pages provide access to the full suite of documentation and support available to RHN users. Merely click **Help** in the **Your RHN** category to see a list of options available to you.

4.3.5.1. Help Desk

The **Help Desk** page summarizes the help options available within this section. Click either the links within this page or the buttons on the left navigation bar to explore further.

4.3.5.2. Quick Start Guide

The **Quick Start Guide** page contains a brief overview of Red Hat Network and its many features. If you are unfamiliar with RHN, it is recommended you read this guide in its entirety. Topics covered include registering your systems, applying Errata Updates, and troubleshooting.

4.3.5.3. FAQ

The **FAO** page lists Frequently Asked Questions and answers to those questions.

4.3.5.4. Contact RHN

The **Contact RHN** page provides methods by which customers may obtain help. Specifically, logged out users have access to the FAQ, Customer Service email address, and rhn-users mailing list only. Logged in Demo customers have access to the above, as well as an online form that can be submitted to rhn-feedback or the Customer Service address. Logged in Basic and Enterprise users have access to all of the above. In addition, the online form enables them to submit requests for technical support.

The Customer Service address handles billing and purchasing questions, while the rhn-users list enables customers to help one another. The rhn-feedback address collects customer input and provides an auto response, but nothing more. The technical support form ensures the customer will get a personalized and helpful response in a timely manner.

4.3.5.5. Red Hat Linux 6.2

The **Red Hat Linux 6.2** page contains step-by-steps instructions for using RHN on Red Hat Linux 6.2. These instructions cover obtaining new versions of the Red Hat Update Agent and the Red Hat Network Registration Client. These same instructions can also be found in Chapter 6 *Using Red Hat Network with Red Hat Linux 6.2* of this guide.

4.3.5.6. Basic Guide

The **Basic Guide** page takes you to this same document, the most comprehensive set of instructions for using Red Hat Network.

4.3.5.7. Security & Privacy

The **Security & Privacy** page describes the measures taken by Red Hat to shield you and your organization from intrusion, by us, as well as outsiders.

4.3.5.8. Terms & Conditions

The **Terms & Conditions** page displays the RHN Network Services Use and Subscription Agreement and its Limited Product Warranty.

4.4. Systems

If you click the **Systems** tab on the top navigation bar, the **Systems** category and links appear. The pages in the **Systems** category allow you to select systems so that you can perform actions on them and create System Profiles.

4.4.1. Systems

As shown in Figure 4-3, the **Systems** page displays a list of all your registered systems. The **Systems** list contains several columns of information for each system:

- Status Shows which type of Errata Alerts are applicable to the system or confirms that it is
 up-to-date. Some icons are linked to pages providing resolution. For instance, the standard Updates
 icon is linked to the Upgrade subtab of the packages list, while the Critical Updates icon goes
 directly to the Update Confirmation page. Also, the Not Checking In icon is linked to instructions
 for resolving the issue, while the Unentitled icon goes to the Buy Now page, if the user is an
 Organization Administrator.
 - ✓ System is up-to-date
 - — Critical Errata available, update *strongly* recommended
 - Updates available and recommended
 - Updates have been scheduled

- System not checking in properly (for 24 hours or more)
- System not entitled to any update service
- Errata Total number of Errata Alerts applicable to the system.
- Packages Total number of package updates for the system. Includes packages from Errata Alerts
 as well as newer packages that are not from Errata Alerts. For example, if a system is subscribed
 to the Red Hat Linux 7.1 i386 channel that contains version 2.5.4 of a package because that is
 the version that shipped with Red Hat Linux 7.1, but the system has version 2.5.2 of the package
 installed, the newer version of the package will be in the list of updated packages for the system.

[mportant]

If the RHN website identifies package updates for the system, yet the **Red Hat Update Agent** responds with "Your system is fully updated" when run, a conflict likely exists in the system's package profile or in the up2date configuration file. To resolve the conflict, either schedule a package list update or remove the packages from the Package Exceptions list for the **Red Hat Update Agent**. Refer to Section 4.4.1.5 *System Details* or Section 2.4.1.3 *Package Exceptions Settings*, respectively, for instructions.

- System The name of the system as configured when registering it. The default name is the
 hostname of the system. Clicking on the name of a system takes you to the System Details page
 for the system. Refer to Section 4.4.1.5 System Details for more information.
- Base Channel The primary channel for the system, based upon its operating system distribution. Refer to Section 4.6.1 *Channels* for more information.
- **Entitlement** Whether or not the system is entitled and at what service level.

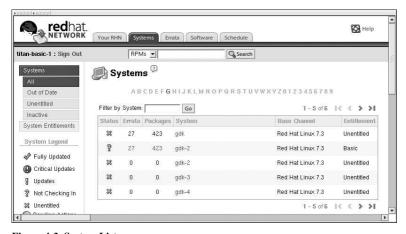


Figure 4-3. System List

Links in the left navigation bar below **Systems** enable you to select and view predefined sets of your systems. All of the options described above can be applied within these pages.

4.4.1.1. All

The All page contains the default set of your systems. It displays every system you've registered with Red Hat Network

4.4.1.2. Out of Date

The **Out of Date** page displays the registered systems that have applicable Errata Alerts that have not been applied.

4.4.1.3. Unentitled

The **Unentitled** page displays the registered systems that have not yet been entitled for Red Hat Network service.

4.4.1.4. Inactive

The **Inactive** page displays the registered systems that have not checked into RHN for 24 hours or more. When the **Red Hat Update Agent** connects to RHN to see if there are any updates available or if any actions have been scheduled, this is considered a checkin. If you are seeing a message indicating checkins are not taking place, the RHN client on your system is not successfully reaching Red Hat Network for some reason. This indicates:

- The system is not entitled to any RHN service. System Profiles that remain unentitled for 180 days (6 months) are removed.
- The system is entitled, but the Red Hat Network Daemon has been disabled on the system. Refer to Chapter 5 Red Hat Network Daemon for instructions on restarting and troubleshooting.
- The system is behind a firewall that does not allow connections over https (port 443).
- The system is behind a proxy that has not been properly configured.
- · Some other barrier exists between the system and the RHN Servers.

4.4.1.5. System Details

If you click on the name of a system on any page, it will display the **System Details** page for the system. From here, you may modify this information or remove the system altogether by clicking the **delete system** link on the top-right corner.

The **System Details** page is further divided into tabs:

• Details — Displays information about the system. This is the first tab you see when you click on a system. Under the System Info heading, a message should appear describing the status of this machine. If it states "Critical updates available" you may click the update now link to apply all relevant Errata Updates to the individual system. Be sure you review the Errata List for the system before performing this action. After clicking the button, you will be asked to confirm the update. Click the Confirm Update button to complete the update. After confirming, the action is added to the Pending Actions list under Schedule => Pending Actions from the top and left navigation bars, respectively.

The packages will be updated by the RHN Daemon. You must have the RHN Daemon enabled on your systems. Refer to Chapter 5 *Red Hat Network Daemon* for more details. The Details tab contains the following subsets of information:

- Overview A summary of the system's details. In addition to the system status message, the Overview subtab contains basic System Info, Subscribed Channels, and System Properties. Clicking the Alter Channel Subscriptions link takes you to the Channels tab, while clicking the Edit these properties link takes you to the Properties subtab. See the following sections for more information.
- Properties The profile name, entitlement level, notification choice, daily summary, auto-Errata update, and physical location of the system, including street address, city, state, country, building, room, and rack. To modify this information, make your changes and click the Update Properties button. The following properties deserve additional explanation:
 - Receive Notifications of Updates/Errata This setting keeps you abreast of all advisories
 pertaining to the system. Anytime an update is produced and released for the system, a notification is sent via email.
 - Include system in daily summary report calculations This setting includes the Enterprise system in a daily summary of system events. (By default, all Enterprise systems are included in the summary.) These are actions affecting packages, such as scheduled Errata Updates, and system reboots or failures to check in. In addition to including the system here, you must choose to receive email notifications in the Your Preferences page of the Your RHN category. Refer to Section 4.3.2 Your Preferences for instructions. Note that RHN will send these summaries only to verified email addresses.
 - Automatic application of relevant errata This setting allows you have all Errata Updates automatically applied to a system. This means packages associated with Errata will be updated without any user intervention. Customers should note that Red Hat does not recommend the use of the auto-update feature for production systems because conflicts between packages and environments can cause system failures. The Red Hat Network Daemon must be enabled on the systems for this feature to work.
- Hardware Detailed information about the system, including networking, BIOS, storage, and
 other devices. This appears only if you selected to include the hardware profile for this machine.
 If the hardware profile looks incomplete or outdated, click the Schedule Hardware Refresh
 button to schedule a Hardware Profile Update for your system. The next time the RHN Daemon
 connects to RHN, it will update your System Profile with the latest list of hardware.
- Errata Contains a list of Errata Alerts applicable to the system. To apply updates, select them and click the Apply Errata button. Double-check the updates to be applied on the confirmation page, then click the Confirm button. Only those Errata that have not been scheduled or were scheduled and failed or canceled are listed. Updates already pending are excluded from the list.
 - To help users determine whether an update has been scheduled, a Status column exists within the Errata table. Possible values are: None, Pending, Picked Up, Completed, and Failed. This column identifies only the latest action related to an Errata. For instance, if an action fails and you reschedule it, this column will show the status of the Errata as Pending only (with no mention of the previous failure). Clicking a status other than None takes you to the **Action Details** page. This column corresponds to one on the **Affected Systems** tab of the **Errata Details** page.
- · Packages Manages the packages on the system.
 - Packages The default display of the Packages tab describes the options available to you and
 provides the means to update your package list. If after exploring the packages, you believe the
 list is outdated or incomplete (or you installed the packages manually and did not have RHN
 install them), click the Update Package List button on the bottom right-hand corner of this
 page. The next time the RHN Daemon connects to RHN, it will update your System Profile with
 the latest list of installed packages.
 - List/Remove Lists installed packages from the system's software System Profile and enables
 you to remove them. Click on a package name to view its Package Details page. (Refer to Section

4.6.5.3 *Package Details*.) To delete packages from the system, select their checkboxes and click the **Remove Packages** button on the bottom right-hand corner of the page. A confirmation page will appear with the packages listed. Click the **Confirm** button to remove the packages.



Note

If you are using up2date version 3.1 or higher, any dependency-related errors generated by the attempted package removal are displayed on the page.

- Upgrade Displays a list of packages that have a new version available based on the package versions in the channel for the system. Click on the latest package name to view its Package Details page. To upgrade packages immediately, select them and click the Upgrade Packages button. To download the packages as .tar files, select them and click the Download Packages button. Refer to Section 4.6.5.2 Package Download for details.
- Install Enables you to install new packages on the system from the available channels. Click
 on the package name to view its Package Details page. To install packages, select them and click
 the Install Selected Packages button.
- Channels Provides a predetermined method for systems to obtain regular updates, based upon
 their operating systems, packages and, functionality. Click a channel name to view its Channel
 Details page. To modify the child channels associated with this system, use the checkboxes next to
 the channels and click the Change Subscriptions button. You will receive a success message or be
 notified of any errors. Refer to Section 4.6.1 Channels for more information.
- Notes Provides you with a place to create notes about the system. To add a new note, click the create new note button, type a subject and details, and click the Create button. To modify a note, click on its subject in the list of notes, make your changes, and click the Update button. To remove a note, click on its subject in the list of notes and then click the delete note button.
- Events Displays past, current, and scheduled actions on the system. You may cancel pending
 events here.
 - **History** The default display of the **Events** tab lists the type and status of events that have failed, occurred or are occurring. This list is automatically generated. To view details of an event, click its summary in the **System History** table.
 - Pending Lists events that are scheduled but have not begun. To unschedule a pending event, select the event and click the Cancel Events button at the bottom of the page.

4.4.2. System Entitlements

To use all of the features of RHN, your systems must be *entitled* — subscribed to an RHN service level. Every user receives one free Red Hat Network Basic entitlement subscription.

Use the **System Entitlements** page to configure which systems are entitled to which service offerings. There are two types of entitlements:

- Basic should be used to manage a single Red Hat Linux system. It includes Errata Alerts, Scheduled Errata Updates, Package Installation, and the Red Hat Update Agent.
- Enterprise should be used to manage multiple systems with multiple system administrators. In addition to the features of the Basic offering, it includes system group management, user management, and the System Set Manager interface to quickly perform actions on multiple systems.

The **System Entitlements** page allows you to view and change the entitlements for your registered systems. To change an entitlement, select the entitlement from the system's pulldown menu and click the **Update Entitlements** button on the bottom right-hand corner of the page. Click the name of a system to see details about it. If you need to purchase additional entitlements, click the **Buy them now** link at the top of the page.

4.5. Errata

If you click the **Errata** tab on the top navigation bar, the **Errata** category and links appear. The pages in the **Errata** category allow you to track and manage Errata Updates.



If you want to receive an email when Errata Alerts are issued for your system, go to **Your RHN** => **Your Preferences** and select **Receive email notifications**.

Red Hat releases Errata Alerts in three categories, or types: Security Alerts, Bug Fix Alerts, and Enhancement Alerts. Each Errata Alert is comprised of a summary of the problem and the solution, including the RPM packages required to fix the problem.

Icons are used to identify the three types of Errata Alerts:

- G Security Updates available, update *strongly* recommended
- # Bug Fix Updates available and recommended
- # Enhancement Updates available

4.5.1. Relevant Errata

As shown in Figure 4-4, the **Relevant Errata** page displays a customized list of Errata Alerts that applies to your registered systems. The list provides a summary of each Errata Alert, including its type, advisory, synopsis, systems affected, and date updated.

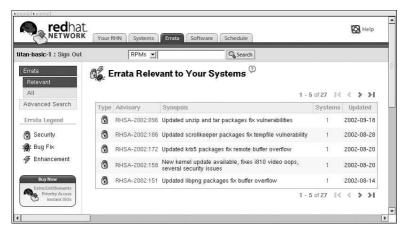


Figure 4-4. Errata List

Clicking on the Advisory takes you to the **Details** tab of the **Errata Details** page. Clicking on the number of associated systems takes you to the **Affected Systems** tab of the **Errata Details** page. Refer to Section 4.5.2.2 *Errata Details* for more information.

4.5.2. All Errata

The **All Errata** page displays a list of all Errata Alerts released by Red Hat. It works much the same as the **Relevant Errata** page in that clicking either the Advisory or the number of systems affected takes you to related tabs of the **Errata Details** page. Refer to Section 4.5.2.2 *Errata Details* for more information.

4.5.2.1. Apply Errata Updates

Errata Alerts include a list of updated packages that are required to apply the Errata Update. To apply Errata Updates to a system, the system must be entitled.

You can apply all applicable Errata Updates to a system by clicking on **Systems** => **Systems** in the top and left navigation bars. Click on the name of an entitled system, and click the **Errata** tab of the resulting **System Details** page. When the Relevant Errata list appears, click **Select All** then the **Apply Errata** button on the bottom right-hand corner of the page. Only those Errata that have not been scheduled or were scheduled and failed or canceled are listed. Updates already pending are excluded from the list.



If you use scheduled package installation, the packages will be installed via the RHN Daemon. You must have the RHN Daemon enabled on your systems. Refer to Chapter 5 *Red Hat Network Daemon* for more details.

The following rules apply to Errata Updates:

 Each package is a member of one or more channels. If a selected system is not subscribed to a channel containing the package, the package will not be installed on that system.

- If a newer version of the package is already on the system, the package will not be installed on that system.
- If an older version of the package is installed, the package will be upgraded.

4.5.2.2. Errata Details

If you click on the Advisory of an Errata Alert in the **Relevant** or **All** pages, its **Errata Details** page appears. This page is further divided into three tabs:

- The **Details** tab provides the Errata Report issued by Red Hat. It describes the problem and solution and lists the channels it affects. Clicking on a channel name displays the **Packages** tab of the **Channel Details** page. Refer to Section 4.6.1.3 *Channel Details* for more information.
- The Packages tab provides links to each of the updated RPMs broken down by channel. Clicking
 on the name of a package displays its Package Details page. Refer to Section 4.6.5.3 Package
 Details for more information.
- The Affected Systems tab shows a list of systems affected by the Errata Alert. Clicking on the name of a system takes you to its System Details page. Refer to Section 4.4.1.5 System Details for more information.

To help users determine whether an update has been scheduled, a Status column exists within the affected systems table. Possible values are: None, Pending, Picked Up, Completed, and Failed. This column identifies only the latest action related to an Errata. For instance, if an action fails and you reschedule it, this column will show the status of the Errata as Pending only (with no mention of the previous failure). Clicking a status other than None takes you to the **Action Details** page. This column corresponds to one on the **Errata** tab of the **System Details** page.

4.5.3. Advanced Search

The **Advanced Search** page allows you to search through Errata according to specific criteria, such as summary, advisory, and package name. Type your keyword, select the criterion to search by, and click the **Search** button. The results appear at the bottom of the page.

4.6. Software

If you click the **Software** tab on the top navigation bar, the **Software** category and links appear. The pages in the **Software** category enable you to view and manage the channels and packages associated with your systems. In addition, you can obtain ISO images here.

4.6.1. Channels

The **Channels** page is the first to appear in the **Software** category. A channel is a list of Red Hat Linux packages grouped by use. Channels are used to choose packages to be installed on a system.

There are two types of channels: base channels and child channels. A base channel consists of a list of packages based on a specific architecture and Red Hat Linux release. For example, all the packages in Red Hat Linux 7.1 for the x86 architecture is a base channel. The list of packages in Red Hat Linux 7.1 for the Itanium architecture is a different base channel. A child channel is a channel associated with a base channel but contains extra packages. For example, an organization can create a child channel associated with Red Hat Linux 7.1 for the x86 architecture that contains extra packages needed only for the organization, such as a custom engineering application.

A system must be subscribed to one base channel only. This base channel is assigned automatically during registration based upon the Red Hat Linux release and system architecture selected. In the case of public free channels (RHL 6.2, 7.x, 8.0), the action will succeed. In the case of Red Hat Enterprise Linux AS and other paid base channels, this action will fail if an associated entitlement doesn't exist.

A system can be subscribed to multiple child channels of its base channel. Only packages included in a system's subscribed channels can be installed or updated on that system.

Channels can be further broken down by their relevance to your systems. Two such lists emerge: **Relevant** and **All**

4.6.1.1. Relevant Channels

As shown in Figure 4-5, the **Relevant Channels** page is shown by default when you click **Channels** in the left navigation bar. It displays a list of channels now associated with your systems. Links within this list go to different tabs of the **Channel Details** page. Clicking on a channel name takes you to the **Details** tab. Clicking on the packages number takes you to the **Packages** tab. And clicking on the systems number takes you to the **Subscribed Systems** tab. Refer to Section 4.6.1.3 *Channel Details* for details. The **Relevant** page also contains links to ISO images. Refer to Section 4.6.3 *Easy ISOs* for instructions.

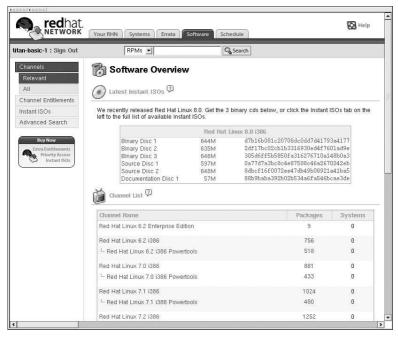


Figure 4-5. Software - Relevant Channels

4.6.1.2. All Channels

The All Channels page can be retrieved by clicking All below Channels in the left navigation bar. It works identically to the Relevant button with one exception; It displays all channels offered by Red

Hat Network, regardless of whether you have systems associated with them.

4.6.1.3. Channel Details

If you click on the name of a channel, the **Channel Details** page will appear. This page contains the following tabs:

- Details General information about the channel and the parent channel if it is a child channel.
 This is the first tab you see when you click on a channel. It displays essential information about the channel, such as summary, description, and architecture. Clicking on its number of packages or systems subscribed takes you to the remaining Channel Details tabs.
- Packages List of packages in the channel. To download packages as a .tar file, select them and click the Download Packages button at the bottom-left corner of the page. Clicking on a package name takes you to the Package Details page. This page displays a set of tabs with information about the package, including which architectures it runs on, the package size, build date, package dependencies, the change log, list of files in the package, newer versions, and which systems have the package installed. From here, you can download the packages as RPMs or SRPMs. Refer to Section 4.6.5.3 Package Details for more information.

If you are looking for a specific package or a subset of packages, you can use the package filter on the top of the list. Entering a substring to search for will search all the packages in the list for the substring at the beginning, in the middle, or at the end of the package name. For example, typing **ks** in the filter might return all the <code>ksconfig</code>, <code>krb5-workstation</code>, and <code>links</code>. The filter is case-insensitive.

- Subscribed Systems List of entitled systems subscribed to the channel. The list displays system names, base channels, and their levels of entitlement. Clicking on a system name takes you to its System Details page. Refer to Section 4.4.1.5 System Details for more information.
- Target Systems List of entitled systems that are eligible to be subscribed to the channel. This tab
 appears only for child channels. Use the checkboxes to select the systems, then click the Subscribe
 button on the bottom right-hand corner. You will receive a success message or be notified of any
 errors. This can also be accomplished through the Channels tab of the System Details page. Refer
 to Section 4.4.1.5 System Details for more information.
- License Text of the channel's End User License Agreement. This tab is associated only with
 channels of third-party providers. It appears when you attempt a subscription to such a channel
 through the Target Systems tab. To complete the subscription, read the agreement, click the Accept
 button, and then click the Confirm button. To decline the subscription, click the Cancel button.

4.6.2. Channel Entitlements

The **Channel Entitlements** page displays the list of channels for which you have paid. Click the number of systems subscribed to see a list of systems tied to the corresponding channel.

4.6.3. Easy ISOs

The **Easy ISOs** page enables you to download binary files for use in making installation disks. This feature is available only to RHN Basic and RHN Enterprise subscribers.

To download an ISO image, click on the name of the corresponding **Binary Disc** image. For instructions on burning the ISO image to a CD-R or CD-RW, refer to the *Red Hat Linux Getting Started Guide* available at http://www.redhat.com/docs/.

4.6.4. Advanced Search

The **RPM Search** page allows you to search through packages using various criteria. You may search by name or name and summary, within relevant or all channels, or within specific architectures. Type your keyword, select the criterion to search by, and click the **Search** button. The results appear at the bottom of the page.

4.6.5. Packages

A package is the smallest essential ingredient of any Red Hat Linux system. Packages, commonly known as RPMs because of their oversight by Red Hat Package Manager, are the pieces of software that, when installed, enable your system to operate. Packages are grouped by channels to help you more easily determine which are applicable to your systems.

These packages can be retrieved in one of two ways: by direct install or through download.

4.6.5.1. Package Install

Only packages included in a system's subscribed channels can be installed or updated on that system.



If you use scheduled package installation, the packages will be installed via the RHN Daemon. You must have the RHN Daemon enabled on your systems. Refer to Chapter 5 *Red Hat Network Daemon* for more details.

To apply Errata Updates, refer to Section 4.5.2.1 *Apply Errata Updates*. To upgrade and install packages through the Systems category, use the **Packages** tab of the **System Details** page. Refer to Section 4.4.1.5 *System Details* for instructions.

4.6.5.2. Package Download

If you do not want to schedule a package installation, you can download the packages immediately. If you download the packages, you must install them manually.

To download packages through the **Systems** category, refer to Section 4.4.1.5 *System Details*.

To download individual RPMs and SRPMs through the Software category, follow these steps:

- 1. Select **Software => Channels** from the top and left navigation bars.
- 2. Click on the name of the channel that contains the package to be downloaded.
- 3. On the **Channel Details** page, click on the **Packages** tab.
- 4. Click on the name of the package that you want to download.
- On the Package Details page, click the Download RPM or Download SRPM link on the bottom right-hand corner.
- 6. Confirm the action.

The next step is to install the packages manually. Refer to Section 2.3.5.2 *Manual Package Installation* for details.

4.6.5.3. Package Details

If you click on the name of any package in the website, the **Package Details** page will appear. This page contains the following tabs:

- Details Details about the package, including subtabs for overview, dependencies, change log, and file list:
 - Overview A summary of the package, including the package description, size, and version.
 (This information is similar to issuing the command rpm -qi packagename but with more detail.) Click the links in the bottom right-hand corner of the page to download the RPM and/or SRPM files for the package.
 - **Dependencies** A list of all other packages that must also be installed on the system for this one to function properly. It also lists packages that it obsoletes or has conflicts with.
 - Change Log The events of this package's history listed in reverse chronological order. (This information is similar to issuing the command rpm -q --changelog packagename.)
 - File List A list of the files that comprise this package, including their MD5 Sums and sizes. (This information is similar to issuing the command rpm -ql packagename.)
- Newer Versions List of newer versions of the packages released via Errata Alerts.
- **Installed Systems** List of systems with this package installed.

4.7. Schedule

If you click the **Schedule** tab on the top navigation bar, the **Schedule** category and links appear. These pages enable you to keep track of the actions taking place within your systems. An action is a scheduled RHN task that is to be performed on one or more client systems. For example, an action can be scheduled to apply all Errata Updates to a system.

Red Hat Network keeps track of the following action types:

- 1. Package Installations For more information on how to perform package installations, refer to Section 4.6.5 *Packages*.
- Errata Updates For more information on how to apply Errata Updates, refer to Section 4.5.2.1
 Apply Errata Updates.
- 3. Hardware Profile Updates To schedule a hardware profile refresh, go to a system list under the Systems category, click on the name of the system, click the Hardware tab of the System Details page, and click the Schedule Hardware Refresh button.
- 4. Package List Profile Updates To schedule a package list profile refresh, go to a system list under the Systems category, click on the name of the system, click the Packages tab of the System Details page, and click the Update Package List button.

Each page in the Schedule category represents a type of action.

4.7.1. Pending Actions

As shown in Figure 4-6, the **Pending Actions** page is shown by default when you click **Schedule** in the top navigation bar. It displays actions that have not started or are in progress.

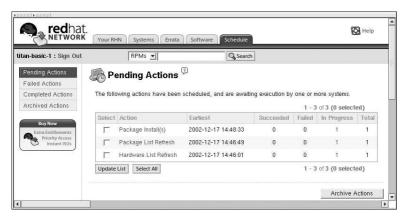


Figure 4-6. Schedule - Pending Actions

4.7.2. Failed Actions

The **Failed Actions** page displays actions that have failed to succeed. If the action returns an error, it will be displayed.

4.7.3. Completed Actions

The Completed Actions page displays actions that have succeeded.

4.7.4. Archived Actions

The **Archived Actions** page displays actions that you have selected to store for review.

4.7.5. Actions List

In each page, each row in the list represents a single scheduled event or action that might affect multiple systems and involve various packages. The list contains several columns of information:

- Select Use the checkboxes in this column to select actions. After selecting actions, you can
 either add them to your selection list or move them to the Archived Actions list. If you archive a
 pending action, it is not canceled; The action item just moves from the Pending Actions list to the
 Archived Actions list.
- Action Type of action to perform such as Errata Update or Package Install. Clicking an action name takes you to its Action Details page. Refer to Section 4.7.5.1 Action Details for more information.
- Earliest The earliest day and time the action will be performed.
- Succeeded Number of systems on which this action was successful.
- Failed Number of systems on which this action has been tried and failed.
- In Progress Number of systems on which this action is taking place.
- Total Total number of systems on which this action has been scheduled.

4.7.5.1. Action Details

If you click on the name of an action, the **Action Details** page appears. This page contains the following tabs:

- Details General information about the action. This is the first tab you see when you click on an
 action. It displays the action type, scheduling administrator, earliest execution, and notes. Clicking
 the Errata name takes you to the Errata Details page. Refer to Section 4.5.2.2 Errata Details for
 more information.
- Completed Systems List of systems on which the action has been successfully undertaken. Clicking a system name takes you to its **System Details** page. Refer to Section 4.4.1.5 *System Details* for more information.
- In Progress Systems List of systems on which the action is now being undertaken. To cancel an
 action, select the system using the appropriate checkbox and click the Unschedule Action button.
 Clicking a system name takes you to its System Details page. Refer to Section 4.4.1.5 System
 Details for more information.
- Failed Systems List of systems on which the action has been attempted and failed. Clicking a
 system name takes you to its System Details page. Refer to Section 4.4.1.5 System Details for more
 information.



Chapter 5.

Red Hat Network Daemon

The Red Hat Network Daemon (rhnsd) periodically connects to Red Hat Network to check for updates and notifications. The daemon, which runs in the background, is typically started from the initialization scripts in /etc/init.d/rhnsd or /etc/rc.d/init.d/rhnsd.

To check for updates, rhnsd runs an external program called rhn_check located in /usr/sbin/. This is a small application that actually makes the network connection to RHN. The Red Hat Network Daemon does not listen on any network ports or talk to the network directly. All network activity is done via the rhn_check utility.

5.1. Configuring

The Red Hat Network Daemon can be configured by editing the /etc/sysconfig/rhn/rhnsd configuration file. This is actually the configuration file the rhnsd initialization script uses. The most important setting offered by the daemon is its check-in frequency. The default interval time is two hours (120 minutes). If you modify the configuration file, you must (as root) restart the daemon with the command service rhnsd restart or /etc/rc.d/init.d/rhnsd restart.



Important

The minimum time interval allowed is one hour (60 minutes). If you set the interval below one hour, it will default to two hours (120 minutes).

5.2. Viewing Status

You can view the status of the **rhnsd** by typing the command service rhnsd status or /etc/rc.d/init.d/rhnsd status at a shell prompt.

5.3. Disabling

To disable the daemon, (as root) run the **ntsysv** utility and uncheck **rhnsd**. You can also (as root) execute the command <code>chkconfig rhnsd</code> off. Using these two methods will only disable the service the next time the system is started. To stop the service immediately, use the command <code>service rhnsd stop or /etc/rc.d/init.d/rhnsd stop</code>.

5.4. Troubleshooting

If you are seeing messages indicating checkins are not taking place, the RHN client on your system is not successfully reaching Red Hat Network. Make certain:

- · your client is configured correctly.
- your system can communicate with RHN via SSL (port 443). You may test this by running the following command from a shell prompt:

```
telnet xmlrpc.rhn.redhat.com 443
```

 the Red Hat Network Daemon is activated and running. You may ensure this by running the following commands:

```
chkconfig --level 345 rhnsd on service rhnsd start
```

If these are correct and your systems still indicate they are not checking in, please contact our technical support team.





Using Red Hat Network with Red Hat Linux 6.2

Red Hat Linux 6.2 shipped with a program named Red Hat Update Agent (up2date). However, this version of the **Red Hat Update Agent** can not be used to connect to Red Hat Network to receive package updates. You need a new version of the **Red Hat Update Agent** and the **Red Hat Network Registration Client** to use Red Hat Network on a Red Hat Linux 6.2 system.

To download and install these programs, use the following steps:

- In a shell prompt, log in as root and execute the command mkdir rhnpackages to create a new directory in which to download the packages.
- In the same shell prompt, execute the command cd rhnpackages to change to the new directory.
- 3. Go to http://rhn.redhat.com/help/rh62.pxt and download the necessary packages.
- 4. Go back to the shell prompt in the rhnpackages directory (you must still be root) and execute the command rpm -Uvh * to upgrade the existing Red Hat Update Agent to the version that works with Red Hat Network. The Red Hat Network Registration Client will also be installed with this command along with other packages your system needs to run the Red Hat Network programs.
- 5. After they are installed, run the **Red Hat Network Registration Client** (rhn_register) to register your system. See Chapter 7 *Red Hat Network Registration Client* for details.
- Login to your account at http://rhn.redhat.com to configure your preferences and to configure which systems you want to entitle.



Red Hat Network Registration Client

Before you begin using Red Hat Network, you need to create a username, password, and System Profile. The **Red Hat Network Registration Client** walks you through this process.



Only systems running Red Hat Linux 6.2 through 7.3 and Red Hat Enterprise Linux 2.1 need to use this separate **Red Hat Network Registration Client** before starting the **Red Hat Update Agent**. Systems running Red Hat Linux 8.0 or newer have this registration functionality built into the **Red Hat Update Agent**. After registering your system, refer to Chapter 2 **Red Hat Update Agent** for instructions on starting the **Red Hat Update Agent** and begin steps listed in Section 2.3 **Setup and Use**.

7.1. Configuring the Red Hat Network Registration Client



Most users do not need to configure the **Red Hat Network Registration Client** before registering their systems. Do not attempt to use this option unless you must.

To start the graphical interface for configuring the application to connect through an HTTP proxy server, type the following command at a shell prompt:

rhn_register --configure

The window shown in Figure 7-1 will appear.

5000000000	ed Hat Network serv c.rhn.redhat.com/X	
f you need e.g. squid.m	a HTTP proxy, ente vsite.org:3128 HTTP Proxy:	mat HOST:POR
☐ Use Auti	entication	
Password:		3

Figure 7-1. Red Hat Network Registration Client Configuration

To start the command line version, use the command:

```
rhn_register --nox --configure
```

It has more configuration options than the graphical version.

You will be presented with a list of options and their current values:

```
0. enableProxyAuth
                    No
1. noSSLServerURL http://www.rhns.redhat.com/XMLRPC
oemInfoFile
                   /etc/sysconfig/rhn/oeminfo

    enableProxy

                   No
4. networkSetup
                    Yes
httpProxy
6. proxyUser
7. serverURL
                   https://www.rhns.redhat.com/XMLRPC
proxyPassword
9. debug
                    No
```

Enter number of item to edit <return to exit, q to quit without saving>:

Enter the number of the item that you want to modify, and enter a new value for the option. When you finish changing your configuration, press [Enter] to save your changes and exit. Press [q] and then [Enter] to quit without saving your changes.

The most common options configured are <code>enableProxy</code> and <code>httpProxy</code> to enable a proxy server. To enable a proxy server, change the value for <code>enableProxy</code> to <code>Yes</code> and the value of <code>httpProxy</code> to the name of the proxy server and port number in the format <code>http://HOST:PORT</code>. For example, to use the proxy server <code>http://squid.mysite.org</code> on port 3128, you would change the value to <code>http://squid.mysite.org:3128</code>.

If you require a proxy username and password, set <code>enableProxyAuth</code> to **Yes** to enable username/password authentication for the proxy, and set <code>proxyUser</code> and <code>proxyPassword</code> to the appropriate username and password for the proxy.

7.2. Starting the Red Hat Network Registration Client

You must be root to register a system with RHN. If you start the **Red Hat Network Registration Client** as a standard user, you will be prompted to enter the root password before proceeding. To start the **Red Hat Network Registration Client**, use one of the following methods:

- 1. On the GNOME desktop, go to the **Main Menu Button** (on the Panel) => **Programs** => **System** => **Red Hat Network**
- On the KDE desktop, go to the Main Menu Button (on the Panel) => System => Red Hat Network
- Type the command rhn_register at a shell prompt (for example an XTerm or GNOME terminal)
- 4. If you are not running the X Window System, type the command rhn_register at a virtual console or remote terminal. Refer to Section 7.7 *Text Mode RHN Registration Client* for further details



You must use **Python 1.5.2-24** or later with Secure Sockets Layer (SSL) support. If not, the information you transfer will not be encrypted. If you have an earlier version of Python, you will see the message shown in Figure 7-2. To determine the version of Python on your system, use the command rpm -q python. It is strongly recommended you use **Python 1.5.2-24** or later.



Figure 7-2. Use Python 1.5.2-24 or later

If you have already registered your system and try to register it again, the dialog box shown in Figure 7-3 will appear. If you continue, it will overwrite your existing Digital Certificate file (/etc/sysconfig/rhn/systemid), and you will create a different System Profile. You will no longer be able to use your previous System Profile — be sure this is what you want to do before you choose **Yes**.

If you overwrite an existing system registration, you can delete the unused profile via the website at https://rhn.redhat.com.

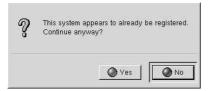


Figure 7-3. Warning: This System Already Registered

The opening screen for the **Red Hat Network Registration Client** gives you a brief overview of the services available and the steps required to register (see Figure 7-4). Click **Next** to continue with the registration process. If you click **Cancel**, the registration process will end and no information will be sent.

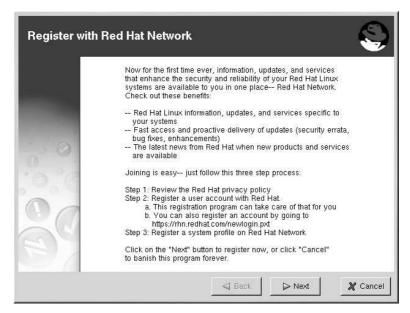


Figure 7-4. Welcome Screen

Red Hat is committed to protecting your privacy (see Figure 7-5). The information gathered during the Red Hat Network registration process is used to create a System Profile. The System Profile is essential if you wish to receive update notifications about your system. If you have any questions about how your information is being used, please contact us at <feedback@redhat.com>.

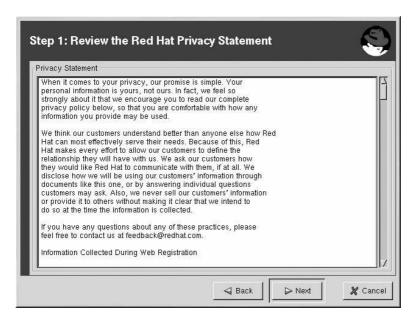


Figure 7-5. Red Hat Privacy Statement

7.3. Registering a User Account

Before you can create a System Profile, you must create a user account. The only required information in this section is a unique username, password, and a valid email address.

In the screen shown in Figure 7-7, you must choose a username and password. Once logged in to Red Hat Network, you can modify your preferences, view your existing System Profile, or obtain the latest Red Hat software packages. You must choose a unique username. If you enter one already in use, you will see an error message (see Figure 7-6). Try different usernames until you find one that has not been used.



Figure 7-6. Error: Username Already Exists



If you are already a member of redhat.com, you can use the same user name and password. However, you will still need to continue with the registration process to create your System Profile.

Your username and password have the following restrictions:

- · Must be at least four characters long
- · Are case-insensitive
- · Can not contain any spaces
- · Can not contain any tabs
- · Can not contain any line feeds
- · Can not contain the characters &, +, %, or '

If you have already registered a machine and created a System Profile, you can add a new machine to your account. Run the **Red Hat Network Registration Client** on the new machine you wish to add, and enter your existing Red Hat Network username and password. The new machine will be added to your existing account, and you can log into Red Hat Network with your username and password to view all your systems simultaneously.

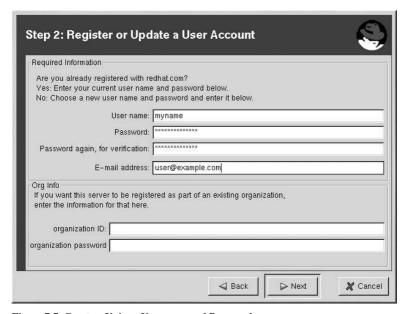


Figure 7-7. Create a Unique Username and Password

Most users can leave the **Org Info** section blank. If you have an existing organization account, work with your Organization Administrator to ensure your system is added to that account.

Click Next to continue.

7.4. Registering a System Profile

Now that you have a user account, you can create a System Profile that consists of hardware and software information about your Red Hat Linux system. The software System Profile information is used by Red Hat Network to determine what software update notifications you receive.

7.4.1. Hardware System Profile

After creating a username and password for your Red Hat Network account, the **Red Hat Network Registration Client** probes your system for the following information:

- · Red Hat Linux version
- Hostname
- · IP address
- · CPU model
- CPU speed
- · Amount of RAM
- · PCI devices
- · Disk sizes
- · Mount points

The next step is choosing a profile name for your system as shown in Figure 7-8. The default value is the hostname for the system. You may modify this to be a more descriptive string, such as **Email Server for Support Team**, if you find it more helpful. Optionally, you can enter a computer serial or identification number for the system.

If you do not wish to include information about your hardware or network in your System Profile, deselect **Include information about hardware and network** (see Figure 7-8).

Click **Next** to continue with the registration process.

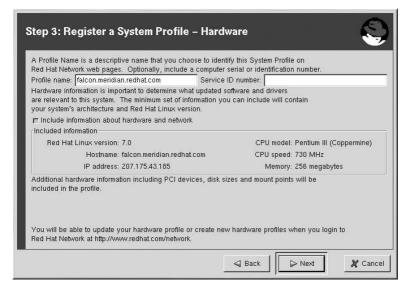


Figure 7-8. System Profile - Hardware

7.4.2. Software System Profile

The software System Profile consists of a list of RPM packages for which you wish to receive notifications. The **Red Hat Network Registration Client** shows you a list of all RPM packages listed in the RPM database on your system and then allows you to customize the list by deselecting packages.

7.4.2.1. Gathering RPM Database Information

Only those packages you choose during this part of the registration will be included in your System Profile, and you will only receive notifications about the packages in your System Profile. Thus, if you use an older version of a package and deselect it from the list, it will not be replaced with a newer version. This RPM list can be modified through the Red Hat Network website or by using the Red Hat Update Agent. Figure 7-9 shows the progress bar you will see while the Red Hat Network Registration Client gathers a list of the RPM packages installed on your system. This operation may take some time depending on your system.

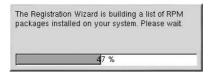


Figure 7-9. Registration Wizard

Once the RPM package list is built, the list will be displayed as shown in Figure 7-10. Deselecting **Include RPM Packages installed on this system in my System Profile** will omit this information from your System Profile.

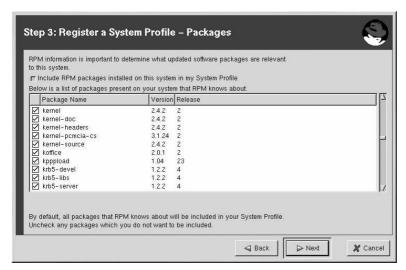


Figure 7-10. RPM Package Information

7.4.2.2. Choosing RPM Packages to Exclude from the System Profile

By default, all RPM packages in your RPM database are included in your System Profile to be updated by Red Hat Network. To exclude a package, uncheck the package from the list by clicking the checkbox beside the package name. For example, Figure 7-11 shows that the **procmail**, **procps**, and **psgml** packages have been omitted from the package list.

Choose which packages to exclude, if any, from the System Profile, and click **Next** to continue with the registration process.

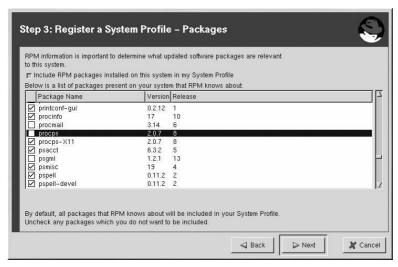


Figure 7-11. Choose which RPM Packages to Exclude from System Profile

7.5. Finishing Registration

As seen in Figure 7-12, the last step of registration is to confirm that you want to send your System Profile to the Red Hat Network. If you choose **Cancel** at this point, no information will be sent. Clicking **Next** will submit your RHN System Profile.

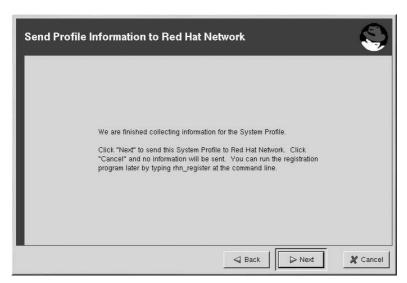


Figure 7-12. Finished Collecting Information for System Profile

Figure 7-13 shows the progress bar you will see while your profile is being sent. This process may take some time depending on your connection speed.

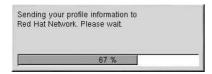


Figure 7-13. Send System Profile to Red Hat Network

You will know your System Profile has been successfully sent when you see the **Registration Finished** screen (Figure 7-14). Click **Finish** to exit the **Red Hat Network Registration Client**.

After completing the registration, you must entitle your system to an RHN service level. Refer to Section 7.6 Entitling Your System for details.

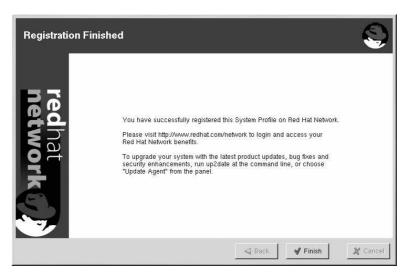


Figure 7-14. Registration Finished

7.6. Entitling Your System

Now that you have registered your system, it must be entitled before you can receive updated packages. In other words, you must subscribe it to a service level offering. Everyone automatically receives one free Demo entitlement after creating an account by registering a system for RHN or creating a redhat.com account.

To entitle a system, go to http://rhn.redhat.com and login using the same username and password you just used in the **Red Hat Network Registration Client**. On the left navigation bar, click **Entitlements** under the **Your RHN** category. The **Entitlement Manager** tells you how many entitlements you have left. If you have one or more left, check the checkbox under the **Entitled** column beside the name of the system that you just registered. Then click the **Update Entitlements** button at the bottom of the page. The number of entitlements remaining will decrease, and your system is now ready to use the **Red Hat Update Agent** and RHN website. Refer to Chapter 2 *Red Hat Update Agent* and Chapter 4 *Red Hat Network Website* for details on how to use them. If you do not have any entitlement slots left, enter the number you want to purchase and click the **Buy Now!** button to purchase additional subscriptions.

7.7. Text Mode RHN Registration Client

If you are not running the X Window System, the **Red Hat Network Registration Client** starts in text mode.

You can force the **Red Hat Network Registration Client** to run in text mode with the command:

```
rhn_register --nox
```

The screens for the text mode **Red Hat Network Registration Client** are almost identical to the screens for the graphical **Red Hat Network Registration Client**. Some of the text in the text mode version is more concise due to lack of space in the interface. However, there is an equal number of

screens and fields in both versions. Thus, if you are using the text mode version, you can still follow the instructions that begin in Section 7.2 Starting the Red Hat Network Registration Client.

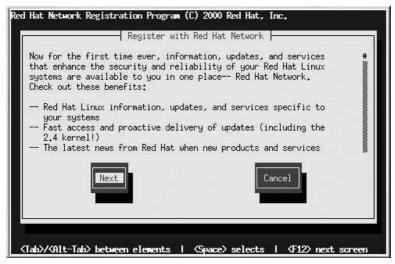


Figure 7-15. Text Mode Welcome Screen





Α

Action

A task that is scheduled by a system administrator using Red Hat Network to be performed on one or more client systems. For example, an action can be scheduled to update the kernel packages on all the systems within a selected group.

В

Base Channel

A base channel is a type of *Channel* that consists of a list of packages based on a specific architecture and Red Hat Linux release. For example, all the packages in Red Hat Linux 9 for the x86 architecture make a base channel.

Basic

One of the RHN service level offerings. Basic was formerly called Software Manager. Basic offers the same services as the Software Manager subscription did, plus more new features.

Bug Fix Alert

An Errata Alert that pertains to a bug fix.

Bugzilla

Bugzilla is an online application (http://www.redhat.com/bugzilla) that allows users to communicate directly with the developers. From Bugzilla, users can submit bug reports and feature requests for Red Hat Linux and related open source packages.

C

Channel

A channel is a list of Red Hat Linux packages. Channels are used to choose packages to be installed from client systems. Every client system must be subscribed to one *Base Channel* and can be subscribed to one or more *Child Channel*.

Child Channel

A child channel is a *Channel* associated with a *Base Channel* but contains extra packages.

Client System

See Registered System .

D

Digital Certificate

A client component in XML format that is stored in the /etc/sysconfig/rhn/systemid file on registered systems. Red Hat Network verifies this certificate to authenticate the registered system before each connection. This certificate is issued by Red Hat and passed to the system as part of the registration process. It includes unique information about the registered system to avoid fraudulent use.

Ε

Email Notification

Similar to an *Errata Alert*, except the information is delivered via email. If the email notifications option is selected, notifications are sent for every Red Hat Network *Errata Alert*. The email includes the type of Errata Alert, summary of the Errata, description of the Errata, and a list of which systems are affected by the report.

Enhancement Alert

An Errata Alert that pertains to a package enhancement request.

Enterprise

One of the RHN service level offering. It has more features than the Basic service level, including user management, system groups, and enhanced system details.

Entitled Server

A server that is subscribed to *Software Manager*. Because the server is entitled, the *Software Manager* interface can be used to manage its packages.

Errata

Information published by Red Hat describing security fixes, bug fixes, and package enhancements for Red Hat Linux. The information includes the topics of the Errata, Bugzilla bug IDs, relevant releases/architectures, solutions including required RPMs, and MD5 checksums for verification. Errata are also available at http://www.redhat.com/errata/. Each RHN *Errata Alert* is based on the Red Hat Linux Errata List.

Security issues and bug fixes are submitted by Red Hat engineers as well as the Linux community through Bugzilla which generates a bug report for each issue. Red Hat engineering evaluates the reports, resolves the bug, and generates new RPM packages. After the Red Hat quality assurance team tests new packages they are placed on the Red Hat Public File Server and on the Red Hat Network Server and an Errata is generated.

Errata Alert

RHN Errata Alert that updated packages based on Red Hat Errata are available for one or more systems within an organization. There are three types of Errata Alerts: Security Alerts, Bug Fix Alerts, and Enhancement Alerts.

P

Package

All software in Red Hat Linux is divided into software packages. Software updates are released in the form of RPM packages that can be installed on a Red Hat Linux system.

R

Registered System

A system that is registered with Red Hat Network. Also known as a client system.

Red Hat Network Daemon

The RHN client daemon (rhnsd) that periodically polls Red Hat Network for updates and notifications.

Red Hat Network Registration Client

The RHN client application (rhn_register) that collects information about the client system, creates a *System Profile* and *Digital Certificate*, establishes a connection with the Red Hat Network servers, and registers the system with Red Hat Network.

Red Hat Update Agent

The RHN client application (up2date) that allows users to retrieve and install all updated packages for the client system on which the application is run. Use the **Red Hat Update Agent Configuration Tool** to configure its preferences, including whether to install the packages after they are downloaded.

RPM

A software package manager that was developed by Red Hat. It can be used to build, install, query, verify, update, and uninstall software packages. All software updates from RHN are delivered in RPM format.

RPM Database

Each Red Hat Linux system has an RPM database that stores information about all the RPM packages installed on the system. This information includes the version of the package, which files were installed with the package, a brief description of the package, the installation date, and more.

RPM Update

Red Hat Network option to deliver the RPM packages based on the *Errata Alert* list to a client system without user intervention. If this feature is selected, packages are delivered through the *Red Hat Network Daemon* running on the client system.

S

Security Alert

An Errata Alert that pertains to system security.

Service Level

A Red Hat Network subscription service. Different service levels offer different features of RHN. There are two service levels currently available: RHN Basic and RHN Enterprise.

Software Manager

The name of the first Service Level offering for Red Hat Network. Software Manager is now known as RHN Basic.

System ID

A unique string of characters and numbers that identifies a registered system. It is stored in the system's *Digital Certificate*.

System Profile

Hardware and software information about the client system. It is created during the registration process. The software information is a list of RPM packages and their versions installed on the client system. The System Profile is used to determine every *Errata Alert* relevant to each client system.

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